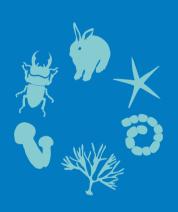
Insect Fauna of Korea

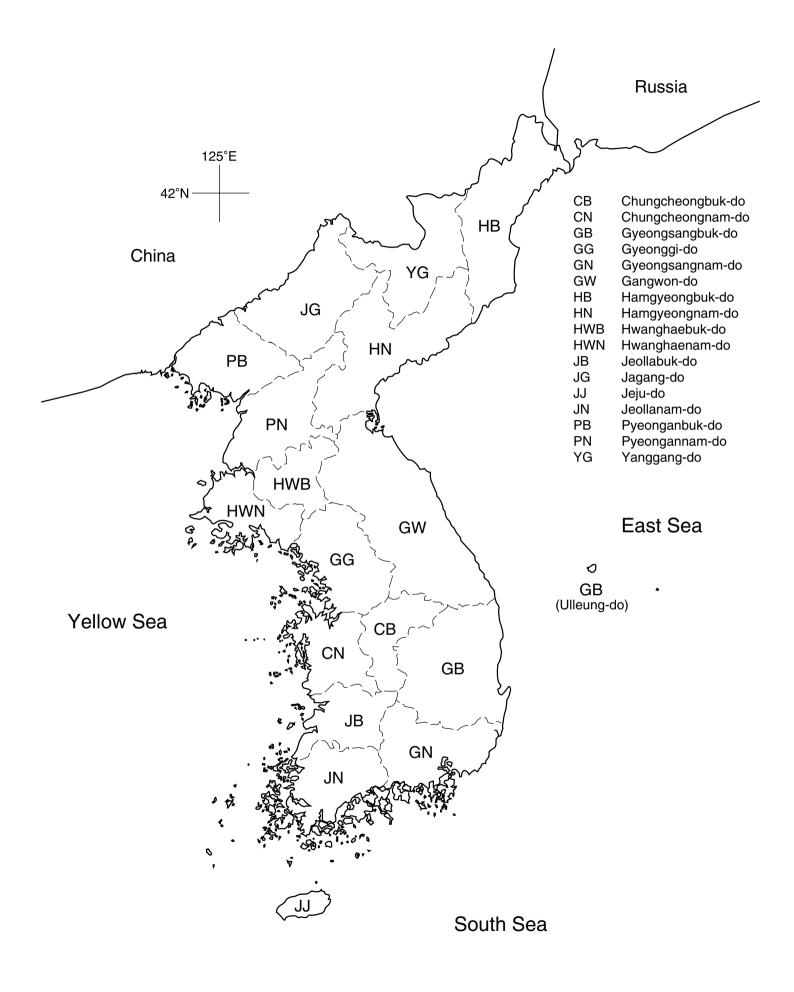
Volume 12, Number 8

Arthropoda: Insecta: Coleoptera:
Anthribidae, Brachyceridae, Dryophthoridae
Weevils IV



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Weevils IV

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A Korean translation of this issue is simultaneously published for Korean speaking readers. This English version therefore should be regarded as an original publication that has nomenclatural priority.



The Flora and Fauna of Korea logo was designed to represent six major target groups of the project including vertebrates, invertebrates, insects, algae, fungi, and bacteria. The book cover and the logo were designed by Jee-Yeon Koo.

Preface

The adoption of the "Nagoya protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization" in 2010 led to the realization of international standardization in the fulfillment of the biological sovereignty and the exploration and preservation of indigenous biological organisms will play a critical role in enhancing the national development and the international competitiveness. Most developed countries had already organized the information of species inhabiting in their territories to claim their severeignty over those biological resources, but in this respect Korea was outpaced by these countries.

In order to effectively secure, use and manage the indigenous biological organisms it is imperative to systematically understand them at the national level and to organize them to publish in the Flora and Fauna of Korea.

Recognizing the importance of its securement and management in taking the initiative in bioindustry in future, National Institute of Biological Resources of the Ministry of Environment has been publishing the Flora and Fauna of Korea for systematic and efficient management of biological resources of our own.

For the last 5 years, professional research groups consisting of relevant professors and the like conducted systematic surveys and organizations for a variety of and wide range of taxa. As a result, 65 issues of Flora and Fauna of Korea, both in Korean and in English, covering 7,709 species and two issues of world monograph covering 216 species were published and 25 issues of Flora and Fauna of Korea, both in Korean and in English, covering 1,313 species are published this year.

These efforts serve not only to identify indigenous species living in Korea and to provide the scientific evidences and certifications to claim the sovereign rights over indigenous biological resources in Korea, but also provide the opportunity to prepare the framework for the biotechnological industrialization of biological resources.

Finally I would like to express sincere appreciation to Mr. Sangwook Park of Research Institute of Forest Insects Diversity, Professor Ki-Jeong Hong of Sunchon National University and Dr. Kyungduk Han of Korean Entomological Institute (Korea University) who did not spare their efforts to publish this issue of Insect Fauna of Korea.

Sang Pal Lee President

Song pal lee

NIBR

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Aplotes roelofsi (Chevrolat, 1882)
Genus Sphenophorus Schoenherr, 1838
Sphenophorus venatus vestitus Chittenden, 1904

Subfamily Stromboscerinae Lacordaire, 1865 Genus *Synommatoides* Morimoto, 1978 *Synommatoides shirozui* Morimoto, 1978

*Discarded genus and species from Korean fauna.

Sitophilus granarius (Linnaeus, 1758)

Sitophilus oryzae (Linnaeus, 1763)

Genus Cosmopolites Chevrolat, 1885

Cosmopolites sordidus (Germar, 1824)

Genus *Nassophasis* Waterhouse, 1879

Nassophasis aspericollis Heller, 1941

Introduction

Korean weevil species of the superfamily Curculionoidea have been studied for last 5 years in the series of the "Insect Fauna of Korea". An outline of Curculionoidea was discussed in Weevil I of the series. We revise 3 families (Anthribidae, Brachycheridae, and Dryophthoridae) in this volume.

Consequently, a total of 56 species belonging to 3 families (Anthribidae, Brachycheridae, and Dryophthoridae) are enummerated for the fauna of Korea in this work, the "Insect Fauna of Korea: Weevils IV (Insecta: Coleoptera)".

History of taxonomic studies on Korean Anthribidae, Brachyceridae, and Dryophthoridae:

In the case of the family Anthribidae, Haku (1936) had reported the anthribid species Brachytarsus kuwanai Yuasa (=Anthribus kuwanai (Yuasa)), collected in Taegu, from Korea for the first time. Mochizuki (1937) reported two species, Anthribus daimio Lewis (=Platyspomos sellatus (Roelofs)) and Brachytarsus nigrovariegatus Roelofs (Anthribus niveovariegatus (Roelofs)). Yokoo and Taguchi (1938) issued a paper on Araeocerus fasciculalus Degeer (Araecerus fasciculatus (Degeer)). They wrote on the taxonomic position, morphology, life cycle, invasion route, and management of this species. Also in 1938, Doi reported 4 species, Araeocerus fasciculalus Degeer (Araecerus fasciculatus (Degeer)), Caccorhinus oculatus Sharp (misidentified species of Euparius koreanus Park and Morimoto), Tropideres laxus Sharp (Sphinctotropis laxus (Sharp)) and Zygaenodes leucopis Jordan (Exechesops leucopis (Jordan)). The first mentioning of the species *Euparius oculatus* (Sharp) was by Kwon and Lee (1986), in which they report on the blackish morphotype. Senoh (1979) added *Tropideres germanus* Sharp (=*Tropideres* naevulus Faust). Kwon and Lee (1986) published a check list on the Curculionoidea from Korea, including 9 species. They added the following three species in that paper: Euparius oculatus oculatus (Sharp), Sintor dorsalis (Sharp) and Gibber nodulosus (Sharp). Senoh (1987) wrote a paper on the anthribid beetles of the Islands of Tsushima, which includes 8 species of Korean Anthribidae: Choragus compactus Sharp, Deropygus histrio histrio Sharp, Opanthribus tessellatus (Boheman), Ozotomerus japonicus Sharp, Platystomos albinus (Sharp), Tropideres cyanoetergum Oda, Autotropis distinguenda (Sharp), and Aphaulimia debilis (Sharp). Yoon et al. (1990) added a species, Rhaphitropis nigromaculata Morimoto, to the Korean fauna in their faunal report. Egorov (1996) wrote in his paper that the only Ozotomerus species that occured in Korea is Ozotomerus japonicus laferi Egorov. Also in that book, he added the species Oxyderes fastigatus to the Korean fauna. Park and Woo (1997) reported 4 species of Anthribidae to the Korean fauna: Enedreytes gotoi Shibata, Sympaector rugirostris (Sharp), Litocerus securus (Boheman), and Rhaphitropis truncatoides Morimoto. However, R. truncatoides was confirmed a misidentification of Uncifer triangulus Park et al. Park and Morimoto (1999) added two new species, Euparius koreanus Park and Morimoto and Uncifer angulatus Park and Morimoto, as well as two other species, Eucorynus crassicornis (Fabricius) and Habrissus analis Morimoto, to the Korean fauna. Park et al. (2001) added a new species and 9 other species to the Korean fauna. They also added a new subspecies, Platystomos sellatus longicrus Park, Hong, Woo and Kwon, to the Korean fauna instead of the subspecies *Platystomos sellatus sellatus* (Roelofs). Although Zimmeman (1960) reported that the species Gonotropis gibbosa (LeConte) in Park et al. (2001) is a synonym of G. dorsalis (Thunberg), many taxonomists treat it as a valid species. Hong et al. (2001) added one species to the Korean fauna.

In regards to Brachyceridae, Hong et al. (2011) reported this family for the first time in Korea with *Desmodophorus hebes* (Fabricius, 1781).

The first record of Dryophthoridae to the Korean fauna was contributed by Kolbe (1886) with Sipalus hypocrites Bohemann (=Sipalinus gigas (Fabricius)), from Seoul and Busan. Kajimo (1933) recorded Sitophilus zeamais Motchulsky (originally, he recorded Calandra oryzae Linnaeus, but it was a misidentification) from Daegu in GB province, and Kim and Kim (1974) recorded Aplotes roelofi (Chevrolat) from Mt. Naejangsan in CB province. After that, Kwon and Lee (1986) published a checklist on the Curculionoidea from Korea, including two newly added species, Cryptoderma fortunei Waterhoutse and Otidognathus jansoni Roelofs. Egorov (1976) reported the distribution of Dryophthorus corticalis (Paykull) in the northern part of Korea. Synommatoides shirozui Morimoto was recorded as a new species, which was collected from Jeju Is. and Japan by Morimoto (1978). Recently, Sphenophorus venatus vestitus Chittenden was recorded from a golf club at Jinhae, Chnagwon-si, GN province, in 2009. It seems to be an invasive species from neighboring countries and this species is occurring only in that area. In the cases of *Sitophilus granarius* and *S. oryzae*, they were recorded as part of the Korean fauna, but we could not find any evidence for such occurrences and most of the records were confirmed as misidentifications. Also, Cosmopolites sordidus (Germar) by Ahn et al. (1990) and Nassophasis aspericollis Heller by Hong (2000) were temporary invasions in greenhouses and do not occur anymore on the Korean peninsula. Therefore, 8 species in 5 subfamilies are recorded in the Korean fauna.

Materials and Methods

Specimens included in this book are based on various collections in Korea, including universities and institutes. For morphological study, weevils were observed directly by ordinary methods under stereoscopic microscopes (X5-160). We used a Canon D-450 Camera, Canon Macro Photo lens MP-E 65 mm, and Auto montage program (CombineZM, UK) for taking color photos of dorsal and lateral aspects. For examination of the genitalia, dissections were performed mostly on specimens macerated in hot water and put the genitalia into 10% KOH solution for about 30 minutes or more, according to the condition of the specimen, and photos of the genitalia were taken in glycerol without mounting. The number of species corresponds with the numbers in the checklist and in the colored plates. The type locality is indicated as "TL", citing their present localities (modified from the spellings in the original descriptions). All available synonyms of the genera and species are listed. In the descriptions of the species, while there are no full descriptions given, original description, general diagnoses, or major charatereristics are provided where possible. The Specimen EXAMINED section includes all label data of the available specimens from various collections in Korea and abroad, as well as some personal collections, particularly in the case of N. Korea. The KOREAN RECORDS section is not only based on collected specimens, but also includes specimen information reported in journals, reports, or in books by local workers, indicating author and year. The BIOLO-GICAL NOTES section cites all host plants related to the larvae from adjacent countries, including the Russian Far East, China, and Japan, but unfortunately it was not possible to indicate details on their original sources. The **DISTRIBUTION** section lists the countries and regions where the taxa are distributed. When Korea is mentioned it means a local distribution, indicating North (the northern part: HB, HN, RG, JG, PB, and PN), Central (the central part: HH, GW, GG, CB, and CN), South (the southern part: GB, GN, JB, and JN), and JJ (Jeju Province). The REMARK section provides information on the report of a species in Korea and other relevant taxonomic information. Abbreviations of the provinces which served as collecting sites are as follows:

HB: Hamgyeongbukdo, HN: Hamgyeongnamdo, RG: Ryangangdo; JG: Jagangdo; PB: Pyeonganbukdo, PN: Pyeongannamdo, HH: Hwanghaedo, GW: Gangwondo, GG: Gyeonggido (including Seoul), CB: Chungcheongbukdo, CN: Chungcheongnamdo, JB: Jeonlabukdo, JN: Jeonlanamdo, GB: Gyeongsangbukdo, GN: Gyeongsangnamdo (including Busan), JJ: Jejudo.

Specimens examined are mostly preserved in the collection of the National Plant Quatantine Service, National Academy of Agricultural Science, Korean National Arboretum, Korea University, Kyungpook National University, the Research Institute of Forest Insect Diversity, and Seoul National University.

Taxonomic Notes

Family Anthribidae Billberg, 1820

So-ba-gu-mi-gwa (소바구미과)

The family Anthribidae, generally referred to as fungus weevils, belongs to Curculionoidea (Coleoptera). The family name Choragidae of Kirby (1819) actually precedes Anthribidae of Billberg (1820); however, since 1820, the family name Anthribidae has been used consistently because of its universal usage. Almost 3,800 species have been recorded of the world fauna. Anthribidae are known to be one of the most primitive families in the superfamily Curculionoidea, having various primitive characters. They occur in all bio-geographical regions but are more abundant in warmer latitudes. Most anthribid larvae can be found in dead branches or trunks of broad-leaf wood which were affected by fungi. Several groups of Anthribidae also feed on other kinds of materials. For instance, species of *Anthribus* are predators on Coccidae and lay their eggs on the eggs of Coccidae in Asia and Europe; *Lichenobius littoralis* feeds on the supralittoral lichen belt of *Pertusaria* in southern New Zealand seashores, and *Araecerus fasciculatus* feeds on many kinds of seeds. In regards to species of *Exechesops*, they show some extraordinary mating behaviors on the immature seeds of their host trees, in addition to laying eggs in the seeds. Males wait for females to mate and then guard the females after mating or during oviposition.

Key to the subfamilies of family Anthribidae in Korea

- Antennae inserted on dorsal surface of rostrum or head. Antennomeres 1–2 asymmetrical, strongly arched. Four Malpighian tubules

Subfamily Anthribinae Billberg, 1820

So-ba-gu-mi-a-gwa (소바구미아과)

Key to the tribes of subfamily Anthribinae

1.	Dorsal prothoracic carina touching basal area of elytra
_	Dorsal prothoracic carina apart from anterior margin of elytra 6
2.	Rostrum rapidly narrowing from base to apex; rostrum strongly carinate at side and carinae
	reaching eye
_	Rostrum parallel-sided or widening anteriorly; rostrum not carinate along side 4
3.	Lateral carina of rostrum not prolonged to middle of eye Anthribini
_	Lateral carina of rostrum prolonged to middle of eye Trigonorhinini

4.	Antennae long, weakly clavate, usually extending to apical margin of elytra in males and basal margin of pronotum in females
_	Antennae not exceeding basal margin of pronotum in both sexes and clearly clavate 5
5.	
_	Body cylindrical; 4 th antennomeres abnormally large in male
6.	Rostrum narrower than head at base; as long as or longer than broad 7
_	Rostrum as broad as head at base and broader than long
7.	Rostrum directed antero-ventrally; ventral side of head continuous to rostrum in forming an arc
	in lateral profile
-	
8.	Antennae with 2 nd antennomere much shorter than 1 st ; club slender at least in male
	Mycteini
-	Antennae with 2 nd antennomere somewhat longer than 1; club broader than funicle in both
	sexes9
9.	Rostrum with a median, longitudinal carina on ventral side Sintorini
_	Rostrum without a median carina on ventral side Discotenini
10.	Antennal funicle compact and short; body parallel-sided and slightly flattened Ecelonerini
-	Antennal funicle flexible and not compact
11.	Eyes oblong-oval, lower margins much closer to each other than upper; lateral carina of prono-
	tum long ····· Platyrhinini
_	Eyes circular, oval, or emarginate, lower margins not closer to each other than upper; lateral
	carina of pronotum short or obscure

Tribe Anthribini Billberg, 1820

Cham-so-ba-gu-mi-jok (참소바구미족)

Genus Anthribus Geoffroy, 1762: 306.

Cham-so-ba-gu-mi-sok (참소바구미속)

Type species: *Anthribus fasciatus* Forster, 1770 (Subsequent design by Jordan, 1931: 285 - Placed on the Official List of Generic Names in Zoology, ICZN 1994, and type designation confirmed, type species placed on the Official List of Specific Names in Zoology).

Synonym: Antribus Illiger, 1801: 127 (unjustified emendation).

Antriptus Illiger, 1801: 127 (unjustified emendation).

Anthotribus Hoffmann, 1803: 110 (unjustified emendation).

Brachytarsus Schoenherr, 1823: 1135 (Type species: *Anthribus varius* Fabricius, 1787= *Anthribus nebulosus* Forster, 1771).

Paropes Schoenherr, 1823: 1135.

Paropus Fischer von Waldheim, 1829: 84 (Type species: *Anthribus varius* Fabricius, 1787= *Anthribus nebulosus* Forster, 1770).

Paropes Germar, 1829: 357.

Anthotribus Agassiz, 1846: 26 (non Hoffmann).

Anthotribus Gemminger and Harold, 1872: 2747 (non Hoffmann, 1803; nec Agassiz, 1846; nec Gistel, 1856).

Pseudobrachytarsus Pierce, 1930: 29 (Type species: Anthribus fasciatus Forster, 1770).

Number of species: 7 species (2 species in Korea).

DISTRIBUTION: Palaearctic, Neotropical.

Key to the species of genus Anthribus

- Elytra with normal strioles; odd intervals more convex than even intervals A. kuwanai

1. Anthribus kuwanai (Yuasa, 1931) (Pls. 1-1, 10-1)

Jjal-mak-so-ba-gu-mi (짤막소바구미)

Brachytarsus kuwanai Yuasa, 1931: 21.

TL: Japan - Tokyo.

Anthribus vandykei Jordan, 1933: 383.

TL: China - Nanking.

Redescription: Body oblong and black except reddish-brown elytra and abdomen. Elytra pale black on even-numbered intervals and behind scutellum. Odd-numbered intervals with several black spots. 5th ventrite somewhat blackish along each side. Rostrum broader than long, narrowing anteriorly and shortly carinate along each side. 3rd antennomeres longer than wide, 4th-8th antennomere almost as long as wide. Antennal club three-segmented, compacted and articulated, expanded inward. 1st antennomere of club triangular, 2nd two times as wide as long, and last antennomere almost round but slightly angulate. Pronotum widest at base, slightly sulcate longitudinally at middle and narrowing anteriorly. Disk with two whitish, horizontal, pubescent bands on anterior and middle areas. Dorsal carina basal and slightly arched posteriorly. Lateral carina 1/4 times as long as lateral length of pronotum. Basal angle arched but slightly narrowing to an acute angle. Elytra almost square but slightly longer than wide. Odd-numbered elytral intervals convex and covered with black pubescence on blackish derm. Legs somewhat short and stout. Tibia with two whitish, pubescent bands. Tarsi short, 1st tarsomere slightly wider than long, 2nd cleft from middle, 3rd bilobed, and 4th almost invisible. 1st and 2nd abdominal ventrites almost straight, and 3rd and 4th ventrites gently arched anteriorly.

MEASUREMENTS: Body length (excluding rostrum). 4.0–6.3 mm.

BIOLOGICAL NOTES: Adults are collected from *Kermes vastus* and *K. nawae* (Hemiptera) in Japan and *Kermes* sp. on oak trees in China (Morimoto, 1978).

DISTRIBUTION: Korea, Japan, Russia (East Siberia, Far East), China.

KOREA: Central, Jeju Is.

KOREAN RECORD: Kwon and Lee, 1990 (Central, South); ESK/KSAE, 1994; Park et al., 2001 (Central, South); Hong et al., 2001 (Central, South); Paek et al., 2010.

Specimens examined: Nanzan-S, KEIJO-C, 5.vi.1934 (S. Eguchi); Hyojajung, 24.v.1937; Saishuto (=Jeju Is.), 21.v.1919 (C. Inoue); 7exs., Suwon, GG, 21.vi.1963; Anyang, GG, 28.v.1989; Seoul, GG, 27.v.1990; Seoul, GG, 7.iii.1937; Palyari, Namyangju, 3.v.1986; Mt. Surak, GG, 11.vi1983.

2. Anthribus niveovariegatus (Roelofs, 1879) (Pls. 1-2, 10-2)

Cham-so-ba-gu-mi (참소바구미)

Brachytarsus niveovariegatus Roelofs, 1879: 4.

TL: Japan.

Brachytarsus nigrovariegatus Roelofs, 1880: 29 (misprint of *niveovariegatus*). *Anthribus lajievorus* Chao, 1976: 339.

TL: China - Omeeishan; Ilung; Nanchung; Kwangan; Hweili; Yunnan; Hunan.

Redescription: Body oblong, black, and covered with whitish, golden, and blackish pubescence. Rostrum short, almost two times broader than long, narrowing anteriorly and entirely carinate along sides. 3rd-5th antennomeres longer than wide, 6th-8th antennomeres almost as long as wide. Antennal club three-segmented, compact, articulated, and slightly expanded inward. 1st antennomere of club slightly triangular, 2nd slightly rectangular and two times as wide as long. Last antennomere almost round but slightly narrowing anteriorly. Pronotum widest at base and gently narrowing anteriorly. Disk with two whitish, horizontal, pubescent bands on anterior and middle areas; whitish band at middle slightly bisinuate. Dorsal carina located basally and slightly arched posteriorly. Lateral carina 1/5 times as long as lateral length of pronotum. Basal angle with slightly narrowing, acute angle. Elytra tessellate and pubescent, almost square but a little longer than wide. Elytral striae deep and closely punctured. Odd-numbered elytral intervals densely covered with blackish and whitish pubescence. Even-numbered intervals covered with golden pubescence; golden pubescence somewhat shorter than other pubescence. Legs somewhat short and stout. Tibia covered with whitish pubescence and with two blackish, pubescent spots on outer margin. Tarsi short, 1st tarsomere as wide as long, 2nd slightly bilobed; 3rd tarsomere smaller than 2nd and bilobed, and 4th almost invisible. 1st and 2nd abdominal antennomeres almost straight, and 3rd and 4th segments gently arched anteriorly. Pygidium largely reticulate and longitudinally carinate in middle.

MEASUREMENTS: Body length (excluding rostrum). 2.3–4.5 mm.

BIOLOGICAL NOTES: The larvae of this species are predaceous upon the females and eggs of the Chinese wax scale, *Ericerus pela*, in China (Chao, 1976).

DISTRIBUTION: Korea, China, Japan, Russia (Far East).

Korea: Central and South.

SPECIMENS EXAMINED: Mt. Yurak, 6.ix.1941; Mt. Yongmun, GG, 30.iv.1989; Suwon, GG, 26.vi.1958; 2exs., Suwon, GG, 13.vii.1958; Mt. Jiri, GN, 5.vi.1983; Bonjang (?), 11.v.1966.

KOREAN RECORD: Mochizuki and Tsunekawa, 1937; Kwon and Lee, 1986; ESK/KSAE, 1994; Hayashi et al., 1994; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Tribe Corrhecerini Lacordaire, 1865

Eol-luk-so-ba-gu-mi-jok(얼룩소바구미족)

Genus Habrissus Pascoe, 1859: 432.

Bae-hok-so-ba-gu-mi-sok (배혹소바구미속)

Type species: *Habrissus pilicornis* Pascoe, 1859.

The genus Habrissus comprises rather heterogeneous species at present. Typical species of the genus are larger, their antennae slender with very long setae; pronotum widest at side angles of carina and rapidly narrowing anteriorly; dorsal carina straight and rounded at sides; lateral carinae short, carinulae absent; rostrum with median and pair of lateral carinae; metasternum simple in male. The unciferoides-pardalis group comprises also H. fomnosanus Jordan, and probably H. inducus Jordan, H. tonkinianus Jordan, and H. tibialis Jordan. They have a characteristic file-like velvety structure on the metasternum in the male. They are generally robust in shape, their antennal clubs are usually much wider than the funicle, and the rostrum has at most a median carina. The dorsal carina of the pronotum is almost straight and narrowly rounded along the sides, and the carinulae are often incomplete or complete. This group resembles Apatenia, but the dorsal carina is much closer to the elytra and the side margins of the pronotum behind the angles of the carinae are narrowing posteriorly. The Zongipes group is close to the above, but the dorsal carina is evenly concave and widely rounded along the sides, and the carinulae are absent. The rostrum has a median and pair of lateral carinae. The cylindricus-nigronotatu group is characteristic in the male, which has a comblike structure on the middle femora, with a similar but shorter structure also found at the apex of the middle tibiae in males. The pronotal carina is straight, angulate, and rounded at the sides; the lateral carinae are rather long, reaching at least the basal third (Morimoto, 1981).

Number of species: 38 species from the world.

DISTRIBUTION: Oriental, Palaearctic.

3. *Habrissus analis* Morimoto, 1981 (Pls. 1-3, 10-3)

Bae-ssang-hok-so-ba-gu-mi(배쌍혹소바구미)

Habrissus analis Morimoto, 1981: 98.

TL: Japan - Hokkaido, Honshu.

Original description: Male. Black, except for antennal clubs; tarsi with third and fourth tarsomeres and mouth parts reddish-brown; dorsal surface variegated with blackish and greyish to brownish-grey pubescence, the latter forming subsequent patches; head with seven indistinct patches, one pair below eyes, one pair along inner margin of eyes, one pair behind postero-medial margin of eyes, and one at center of vertex; pronotum with several indistinct patches, one before scutellum and pair behind transverse carina usually distinct; median and lateral pair of stripes

widely interrupted in middle, with two pairs of indistinct patches arranged transversely in middle; scutellum densely pubescent; elytra with odd-numbered and fourth intervals with greyish to brownish-grey spots behind middle, which conjointly form larger patches on third to fifth intervals; femora thinly clothed with grayish, longer pubescence; hind femora each with a distinct ring at apical fourth, both side of ring often brownish; tibiae each with a median ring; tarsi with basal half of first and entire surface of second tarsomeres greyish; ventral surface sparsely covered with greyish, longer pubescence except for mesosternum. Head densely punctate, frons between eyes much narrower than rostrum (5:11); rostrum transverse, densely punctate, with three carinae on basal half, median carina extending posteriorly to vertex, lateral carinae weak and converging slightly anteriorly from inner margin of eyes. Antennae slender, with proportions in length from base as 10:10: 16:13:12:11:11:9:14:14:15, width of tenth 6; club asymmetric. Pronotum slightly wider than long (8:7), sides evenly rounded, transverse carina as in *H. longipes*, weakly concave posteriorly, widely rounded on each side and continuing to very short, lateral carinae; carinulae absent, disk densely punctate. Elytra as in *H. longipes*, third and fourth intervals wider and slightly convex. Pygidium slightly wider than long, sides straight and weakly narrowing postreiorly; posterior margin subtruncate, slightly depressed along side margins, punctate. Prosternum before coxae and lateral areas of metasternum sparsely covered with large punctures; mesosternal process and venter with small, sparse punctures. Venter with fifth ventrite deeply excavated in middle, each side of excavation with a blackish, velvety patch. Aedeagus with penis evenly narrowing apically from middle and weakly dilated at apex, truncate at tip; cap-piece of tegmen rounded at apex; tergite of genital segment obliquely truncate at apex, sternite not setose. Female. Antennae slightly shorter, with proportions in length from base as 12:9:14:12:10:9:10:8.5:18:11:14, width of tenth 7. Venter with fifth ventrite simple, slightly protruding ventrad (Morimoto, 1981).

MEASUREMENTS: Body length (excluding rostrum). 4.9–8.0 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, Japan (Kyushu, Tsushima).

Korea: Jeju Is.

Specimens examined: $2 \ 71 \ ?$, Eorimok, JJ, 1.v.1993; $1 \ 71 \ ?$, Gyoraeri, Jocheoneub, JJ, 20.vii.2012. Korean record: Park et al., 2001 (Jeju Is.); Hong et al., 2001 (Jeju Is.); ESK/KSAE, 1994; Paek et

al., 2010.

Tribe Cratoparini LeConte, 1876

Beo-seot-so-ba-gu-mi-jok(버섯소바구미족)

Genus Euparius Schoenherr, 1823: 1135.

Beo-seot-so-ba-gu-mi-sok(버섯소바구미속)

Type species: Anthribus lunatus Fabricius, 1801=Macrocephalus marmoreus Olivier, 1795.

SYNONYM: Caccorhinus Sharp, 1891: 321 (Type species: Caccorhinus oculatus Sharp, 1891).

Cratoparis Dejean, 1834: 235 (Unnecessary Replacement Name).

The rostrum is excessively short, but on the ventral side is divided from the head by a very deep constriction; the antennae are inserted along the sides of the rostrum, the point of insertion covered in front, the scrobes are grooves extending directly downwards; the entire basal joint of the antennae is, however, exposed. The eyes are coarsely facetted and very large. The submentum appears to be quite truncate, but careful examination shows that its angles are slightly prolonged in front. The thoracic carina is basal, and continues along the sides for about half the length of the thorax. The front coxae are nearly contiguous, the middle rather widely separated, and the mesosternum between them not quite perpendicular (in the genus *Caccorhinus* - Sharp, 1891).

Number of species: 73 species (3 species in Korea).

DISTRIBUTION: Oriental, Palaearctic, Nearctic, Neotropical, Australian.

Key to species of genus Euparius

4. Euparius koreanus Park and Morimoto, 1999 (Pls. 1-4, 10-4)

Ju-hong-beo-seot-so-ba-gu-mi (주홍버섯소바구미)

Euparius koreanus Park and Morimoto, 1999: 97.

TL: Korea - Cheonan, Chuncheon, Gapyeong, Seoul, Wonju, Yangju. *Caccorhinus oculatus* Doi (nec Sharp), 1938: 33.

Original description: Male. Body pale reddish-brown on dorsal surface, elytra with weak tessellated markings on alternate intervals by grayish and brownish vesture, tessellation becoming indefinite on outer intervals. Ventral side of body blackish-brown. Antennae reddish-brown. Legs black; fore tibiae with/without ochreous pubescence forming band at middle; middle and hind tibiae with clear ochreous pubescent band on reddish derm at middle; tarsi entirely black. Head without median carina; rostrum with a weak longitudinal depression at middle. Antennal club weakly asymmetrical; 10th antennomere slightly longer than wide. Pronotum slightly broader than long, broadest at base, basal margin slightly bisinuate, unclear X-shaped marking at middle, angles of carina slightly less than 90°, lateral carina reaching anteriorly to 2/5 of side margin from base, disc with dense, small punctures, more or less transversely confluent on basal area. Elytra somewhat parallel-sided and curved towards apex, weakly depressed behind basal margin; sub-basal swellings very weak; punctate striae somewhat concealed by pubescence, much narrower than intervals. Prosternum with somewhat small punctures except for large punctures along sides. Mesosternal process broader than long, simply rounded posteriorly. Metasternum with/without granules at middle and with punctures sparser along sides; median longitudinal suture complete and visible.

Venter with dense, small punctures; vesture fine and dark on median area, longer and ochreous at sides and latero-caudal margins of each ventrite on reddish derm; first to fourth ventrites shallowly depressed in middle, fifth ventrite subtruncate at apex. Pygidium slightly broader than long, broadly rounded at side and sub-truncate at apex. **Female**. Metasternum coriaceous, without granules at middle. Fifth ventrite broadly rounded at apex (Park and Morimoto, 1999).

MEASUREMENTS: Body length (excluding rostrum). 6.5–8.0 mm.

BIOLOGICAL NOTES: The adults were collected from *Coriolus versicolor* (L. ex Fr.) in Korea.

DISTRIBUTION: Korea.

Korea: Central.

Specimens examined: 3exs., Seoul, GG, 25.vi.1937; $1 \stackrel{\circ}{+}$, Mt. Yongmun, GG, 1.ix.1980; $1 \stackrel{\circ}{+}$, Yangju, GG, 15.ix.1991; $1 \stackrel{\circ}{+}$, Wonju, GW, 12.ix.1997; $1 \stackrel{\circ}{-}$, Mt. Seonggeo, CN, 31.v.1998; 14exs., Mt. Surisan, Gunposi, GG, 16.viii.2009.

KOREAN RECORD: Doi, 1938 (misidentified); Cho, 1957 (misidentified); Park and Morimoto, 1999; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Remarks: Doi (1938) misidentified this species with *E. oculatus*.

5. *Euparius oculatus* (Sharp, 1891) (Pls. 1-5, 10-5)

Beo-seot-so-ba-gu-mi(버섯소바구미)

Caccorhinus oculatus Sharp, 1891: 321.

TL: Japan - Osaka, Junsai, Otsu.

Caccorhinus oculatus var. niger Nakane, 1955: 39.

Original description. Sat elongatus, subcylindriculs, prothorace anterius attenuatus; niger supra griseotomentosus, nigro-maculatus. Long. $6^{1}/2-9^{1}/2$ mm. First and second joints of antenna much thicker than remaining joints, but rather slender; third to eighth quite slender, ninth broad, subquadrate; tenth transverse, terminal joint as long as the two preceding together. Thorax rather long, greatly narrowing towards front, not variegate, but basal part usually darker in color than front part; carina basal, forming an acute rectangle with lateral margin; elytra rather elongate, griseous and tomentous, with numerous black spots arranged in a linear manner; ventral surface black and destitute of tomentum (Sharp, 1891).

Additional description: Body black, except for pale brownish antennae. 10th antennomeres expanded and triangular medially. 11th antennomere two times as long as wide. Rostrum much wider than long and grooved at middle. Foretibia with a somewhat narrowing, whitish band, midtibia and hindtibia with a broad, whitish band. Elytra narrowing obtusely at apical area and covered with yellowish and blackish pubescent spots on odd-numbered intervals; 2nd tarsomere slightly shorter than 1st and cleft at apical area; 3rd tarsomere much smaller than 2nd but clearly visible and bilobed, 4th almost invisible.

MEASUREMENTS: Body length (excluding rostrum). 5.5–8.4 mm.

BIOLOGICAL NOTES: This species was found in fungus in Osaka, Japan (Sharp, 1891) and collected from mushrooms on logged oak trees in Korea.

DISTRIBUTION: Korea, China (Shanxi), Japan, Russia (Far East), Taiwan.

KOREA: Central and South.

REMARKS: The coloration of the speciemen from Mt. Odae is black.

6. Euparius tamui Nakane, 1963 (Pl. 1-6)

Du-jeom-beo-seot-so-ba-gu-mi (두점버섯소바구미)

Euparius tamui Nakane, 1963: 31.

TL: Japan - Kammuri Isl. North of Kyoto.

Original description: Upper surface deep reddish-brown with head; a pair of large patches at base of pronotum; transverse band behind middle of elytra; quadrate patch behind scutellum, humeral prominence blackish. Ventral surface black. Antennae, palpi, and tarsal claws light reddish-brown. Greyish-yellow setae covering body surface, intermixed with testaceous ones, and dark parts of surface covered with brown setae. Structurally, this species is closely similar to *E. Oculatus* Sharp, but the punctures on the pronotum do not form coarse wrinkles at the base and on both sides; the color pattern of the upper surface is quite different from the latter species (Nakane, 1963).

Additional description. Antennal flagellum gradually shortening from basal to apical antennomeres; 10th antennomeres slightly longer than wide, and not expanded and triangular; 11th antennomeres 1.5 times as long as wide. Rostrum much wider than long and keeled longitudinally at middle. Tibiae with a broad, whitish band. Elytra gradually narrowing at apical area and covered with a uniform yellowish pubescence, except for quadrate patch behind scutellum and a pair of blackish patches behind middle of elytra. Legs somewhat slender, 2nd tarsomere slightly shorter than 1st and cleft at apical area; 3rd tarsomere much smaller than 2nd but clearly visible and bilobed, 4th almost invisible.

MEASUREMENTS: Body length (excluding rostrum). 6.9–7.2 mm. **BIOLOGICAL NOTES**: This species was collected with a malaise trap.

DISTRIBUTION: Korea, Japan (Honshu).

Korea: Jeju Is.

Specimens examined: $1 \stackrel{\circ}{\downarrow}$, Jeolmul, Jeju-si, JJ, 2–9.vii.2005; $1 \stackrel{\circ}{\downarrow}$, Jeolmul, Jeju-si, JJ, 30.vii.-6.viii.2005.

REMARKS: This species is newly recorded to the Korean fauna in this study.

Tribe Discotenini Lacordaire, 1865

Tti-so-ba-gu-mi-jok(띠소바구미족)

Genus Autotropis Jordan, 1924: 241.

Meod-jaeng-i-so-ba-gu-mi-sok(멋쟁이소바구미속)

Type species: Autotropis modesta Jordan, 1801.

Number of species: 9 species (2 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

Key to the species of genus Autotropis

1. A wide, quadrate, blackish patch behind scutellum. Apical half of tibia blackish A. basipennis

A round, blackish patch surrounding broad and round whitish patch behind scutellum. Tibia and tarsi yellowish brown, uniform in color

A round, blackish patch surrounding broad and round whitish patch behind scutellum. Tibia and tarsi yellowish brown, uniform in color

7. Autotropis basipennis (Sharp, 1891) (Pl. 2-7)

Hong-eol-ruk-ddi-so-ba-gu-mi (홍얼룩띠소바구미)

Tropideres basipennis Sharp, 1891: 310.

TL: Japan - Kurigahara.

Original description. Subcylindricus, nigricans, tomentosus, griseo pallideque rufo variegatus, antennis sat carassis; prothoracis carina praebasali subrecta; elytris mox pone marginem basalem profunde transversim impressis. Long. Rostro porrecto 6 mm.

This insect seems structurally closely allied to *T. distinguendus*, but possesses a peculiar character that distinguishes it from that species, as well as all others, in as much as there is a profound transvers depression at the base of each elytra, and the basal margin being elevated in front of this and projecting on the base of the thorax, appearing as if it were a portion of the latter. The rostrum is short, but a good deal dilated at the apex, the antennae rather stout, with broad, rather long, three-jointed club; the thoracic carina is nearly straight, and is directed forwards at the sides by an extremely gentle curve. Elytra greatly variegate, but without definite pattern; without elevations. Middle coxae slightly separated (Sharp, 1891).

Additional description. Body reddish-black and legs, anterior part of pronotum, and antennae, except club, reddish-brown. Several areas of elytra reddish-brown. 1st and 2nd antennomeres slightly thicker than 3rd to 8th antennomeres; 8th–10th antennomeres nearly the same length; 11th antennomere slightly longer than preceding one. Rostrum slightly wider than long and dilated anteriorly. Prothoracic dorsal carina subbasal and basal carinula slightly separated from basal angle. Anterior margin of elytra bisinuate and slightly flattened horizontally. Blackish derm located longitudinally, somewhat widened at basal area and widest at middle of elytra. Legs somewhat darkened at apical

area of tibiae and each tarsomere. Tarsi slender, 1st tarsomere 1.5 times longer than 2nd, 2nd cleft at apical area; 3rd tarsomere much smaller than 2nd but clearly visible and bilobed, 4th almost invisible.

MEASUREMENTS: Body length (excluding rostrum). 3.8–5.1 mm.

BIOLOGICAL NOTES: Adults were reared from dead trunks of Zelkova serrata in Japan (Morimoto, 1981).

DISTRIBUTION: Korea, Japan (Honshu, Kyushu), Russia (East Siberia, Far East).

KOREA: South.

SPECIMENS EXAMINED: 1♂, Daegu, GB, 27.iv.1974; Yeonhari, Yeongwoleub, Yeongwolgun, GW, 6.viii.2011.

KOREAN RECORD: Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

8. Autotropis distinguenda (Sharp, 1891) (Pls. 2-8, 10-8)

Meod-jaeng-i-so-ba-gu-mi (멋쟁이소바구미)

Tropideres distinguendus Sharp, 1891: 310.

TL: Japan - Nagasaki, Kiga, Miyanoshita, Yokohama, Junsai.

Original description: Subcylindricus, niger, tomentosus, supra pallide friseo-fuscoque variegatus, antennis minus tenuibus, rufescentibus, extrorsum fuscescentibus; crina thoracis subrecta, ad basin approximata. Long. Rostro porrecto 4 mm.

Antennae rather stout, the three joints of club rather loosely articulated, none of them elongate. Rostrum subquadrate, only very slightly narrowing at eyes; eyes lateral, encroaching in slightly on the rostrum. Thorax elongate, gently narrowing in front; carina nearly straight, slightly distant from elytra, joining lateral margin at an obtuse and rounded angle. Elytra with vestiture rather coarse, pallid, marked with fuscous scales; with a feeble basal elevation. Tibiae reddish, not variegate. Prosternum short, middle coxae not widely separated (Sharp, 1891).

Additional description. Body blackish-brown, legs and antennae, except club, reddish-brown. Several areas of elytra reddish-brown. 1st and 2nd antennomeresthicker than 3rd to 8th antennomere; 7th–10th antennomere nearly the same length; 11th antennomere with a constriction at apical area. Rostrum slightly wider than long and slightly dilated anteriorly. Prothoracic dorsal carina subbasal and basal carinula slightly separated from dorsal carina, starting from inside of basal angle. Anterior margin of elytra bisinuate and slightly flattened horizontally. Basal area of elytra behind scutellum with heart-shaped mark covered by blackish pubescence, surrounded by reddish, circular derm, covered by whitish pubescence. Legs covered with white pubescence. Tarsi somewhat slender, 1st tarsomere 2 times longer than 2nd; 2nd slightly cleft at apical area; 3rd tarsomere much smaller than 2nd but clearly visible and bilobed, 4th very short and almost invisible.

MEASUREMENTS: Body length (excluding rostrum). 2.7–3.7 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, Japan, Russia (East Siberia, Far East), Taiwan.

Korea: Central and South.

SPECIMENS EXAMINED: Mt. Seolak, GW, 27.vii.1982; Inje, GW, 27.v.1993; Mt. Jukyeob, GG, 21.v.1994; Yeosanhyugeso, JB, 13.ix.1996; Kwangreung, GG, 14.v.1991; Daegwanryeong, Pyeongchang, GW,

11.vi.1997.

KOREAN RECORD: Senoh, 1987; ESK/KSAE, 1994; Hayashi et al., 1994; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Genus Enedreytes Schoenherr, 1839: 215.

Huin-tti-so-ba-gu-mi-sok (흰띠소바구미속)

Type species: *Enedreytes hilaris* Fahraeus, 1839.

Synonym: *Enedeutes* Agassiz, 1846: 138 (unjustified emendation).

Enedreutes Lacordaire, 1865: 536 (HN, unjustified emendation).

Enedreutes Gemminger and Harold, 1872: 2735 (HN, unjustified emendation).

Number of species: 14 species (1 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

9. *Enedreytes gotoi* Shibata, 1969 (Pls. 2-9, 10-9)

Heun-won-mu-nui-so-ba-gu-mi (흰원무늬소바구미)

Enedreytes gotoi Shibata, 1969: 28.

TL: Japan - Sasabe, Nose, Hyogo Pref.; Senriyama, Osaka.

Original description: Blackish-brown, antennae and legs dark brown, variegated by whitish pubescence that is rough and scarce. Dorsal pattern similar to *Plintheria variolosa* Shibata, but whitish spots or lines less in number and more obscurely marked, especially on pronotum, where a median basal line, two dorso-lateral ones, and areas of lateral sides are not forming sharp, defined markings. On elytra, a basal narrow line that is barely conspicuous, but in one of seven examined specimens, a principal row of three spots of alternate interspaces are clearly apparent. Rostrum thick, subquadrate, nearly as long as apical width, weakly compressed before base but not spatulate, and slightly depressed behind apical margin, slightly emarginate medially; disc almost flat except for depression; densely umbilicate-punctate, apical reddish part with weak punctures, somwhat rugulose; antennal scrobe approaching base of mandible. Buccal fissure fully lengthened posteriorly, deep, extending towards basal part of false mentum. Eyes small, almost circular and transverse, the space between them slightly narrower than minimum width of rostrum. Antennae rather robust, three (or four) well-developed club articles, somewhat asymmetrical, more rounded or prolonged along one side than other; or bearing some dark setae ventrally, intermediate joints with whitish pubescence; 8^{th} article distinct, longer in \mathcal{I} than in \mathcal{I} ; basal two joints thick; 3^{rd} to 5^{th} subequal in length (or 4th a little longer than other two); 6th and 7th slightly shorter than proximate one; 7th weakly widening to apex in 3; 8th short, triangular; 9th triangular, as wide as long; 10th transverse, semicircular and slightly wider than long; 11th rounded; 8th thick in ♀, weakly widening to apex but not triangular, with succeeding club joints clearly triarticulated. Pronotum convex, slightly wider than long, the widest point situated at base, subsequently becoming gently rounded and gradually convergent anteriorly, with dense, somewhat reticulate, umbilicate punctures; dorsal carina subbasal, weakly bisinuate and convex; dorsal and lateral carinae rounded but sharper than those of *P. variolosa*, lateral carina scarcely prolonged forward (while in *P. variolosa*, dorsal carina ending in a rounded curve laterally, not noticeably extending ahead), basal longitudinal and transverse carinulae present, the former generally joined to lateral principal carina but the latter very short. Elytra moderately convex except for transverse depression along basal margins, subparallel-sided, widest behind the middle and slightly wider than basal width of pronotum; disc rough with distinct, large, deep, serial punctures; interspaces between punctures smaller, punctures becoming faint at apical declivity; sub-basal swelling indistinct; interspaces slightly convex, 3rd or all alternate ones often slightly wider than others (though the author examined seven specimens, in some of them the alternate interspaces are certainly as above, but in all of them they are equal in width to the others, therefore this indication may prove to be unreliable). Pygidium wider than long and semicircular in both sexes, rugged, finely granulate and almost uncovered as ventral side. Midtibia of *¬* bearing a sharp tooth ventrally at apical edge (Shibata, 1969).

MEASUREMENTS: Body length (excluding rostrum). 2.0–2.8 mm.

BIOLOGICAL NOTES: The type specimens were obtained on *Castanea crenata* Sieb. Et Zucc. in Japan (Shibata, 1969).

DISTRIBUTION: Korea, Japan, Russia (Far East).

KOREA: Central and South.

Specimens examined: Suwon, GG, 11.viii.1982; Suwon, GG, 4.vii.1983; Kimcheon, GB, 2.vi.1997;

Samnammyun, GN, 24.v.1980.

KOREAN RECORD: Park and Woo, 1997; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Tribe Ecelonerini Lacordaire, 1865

Teol-bo-so-ba-gu-mi-jok (털보소바구미족)

Genus Eucorynus Schoenherr, 1823: 1135.

Teol-bo-so-ba-gu-mi-sok (털보소바구미속)

Type species: *Anthribus crassicornis* Fahraeus, 1801.

Number of species: 4 species (1 species in Korea). Distribution: Oriental, Palaearctic, Australian.

10. Eucorynus crassicornis Fabricius, 1801 (Pls. 2-10, 10-10)

Teol-bo-so-ba-gu-mi(털보소바구미)

Anthribus crassicornis Fabricius, 1801: 407.

TL: Sumatra.

Eucorynus clavator Fairmaire, 1903: 43. Eucorynus setosulus Pascoe, 1859: 434. Eucorynus colligendus Walker, 1859: 261.

Redescription: Male. Body elongated, oblong, and somewhat flattened. Derm blackish-brown and covered with yellowish and blackish, short pubescence and somewhat long setae. Two yellowish pubescent bands on each tibia, basal one narrow and apical one broad. Interocular width almost same as width of rostrum. Compound eye round. Antennae club with four articles; antennal scrobe apart from eye and upper, posterior margin of scrobe carinate. 3rd antennomeres 1.5 times as long as 2nd, 5th and 6th antennomeres with whitish-yellow pubescence on anterior margin, 7th antennomere almost covered with whitish-yellow pubescence, and 8th-11th antennomere covered with blackish pubescence; club wide, flattened. Ventral side of 6th-11th antennomere with long, blackish setae. Pronotum widest at middle and covered with shallow punctures and several yellowish pubescent markings; punctures with a single long seta, with pubescence only covering outside of punctures. Dorsal carina subbasal, arched posteriorly and connected to lateral carina with a wide obtuse angle. Lateral carina reaching middle. Elytra parallel-sided and much longer than wide (proportion 12:7). Many yellowish-brown pubescent patches scattered on elytra and yellow, longitudinal, pubescent patches on subapical area which are wide and bigger than others. Procoxae slightly separated. Tibia straight and slightly broadening to apical area. Each tarsomere short; 1st tarsomere as long as 2nd, 2nd tarsomere with cleft at apical area; 3rd tarsomere somewhat smaller than 2nd and bilobed; 4th almost invisible. Pretarsal claws with a small denticle on inner margin. Pygidium wider than long. **Female**. Antennae without blackish setae on ventral side.

MEASUREMENTS: Body length (excluding rostrum). 6.1-10.0 mm.

BIOLOGICAL NOTES: Several individuals were observed inside of rotten bark on a living tree from Jeju island, Korea.

DISTRIBUTION: Korea, China, Japan, Russia (East Siberia, Far East), Taiwan, Thailand, Malaysia, Singapore, Philippines, India, Pakistan, Nepal; Afrotropical, Oriental, Palaearctic.

Korea: North, Jeju Is.

Specimens examined: $3 \ 75 \ \%$, Donneko, Seogwipo, JJ, 28.ix.1990; $5 \ 76 \ \%$, Seogwipo, JJ, 29.ix.1990. Korean record: Park and Morimoto, 1999; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Tribe Mycteini Morimoto, 1972

Ddak-bu-ri-so-ba-gu-mi-jok(딱부리소바구미족)

Genus Sympaector Kirsch, 1875: 52.

Ddak-bu-ri-so-ba-gu-mi-sok (딱부리소바구미속)

Type species: *Sympaector vittifrons* Kirsch, 1875.

Number of species: 16 species (1 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

11. Sympaector rugirostris (Sharp, 1891) (Pls. 2-11, 11-11)

Ddak-bu-ri-so-ba-gu-mi (딱부리소바구미)

Tropideres rugirostris Sharp, 1891: 302. **TL**: Japan - Nikko, Chuzenji, Junsai.

Original description: Rostrum densely rugose, black, dull; eyes narrowly separated, each marginated medially with an ochraceous line converging medially at front of eyes, forming a broad line, which continues slightly forward along middle of rostrum. Thorax broad, greatly narrowed in front, coarsely rugose, black, with a transverse impression on disc, on either side of which there is an ochraceous mark; a quadrate, pale mark in front of the scutellum, and a few minute spots; prebasal carina nearly straight, bent forwards at side, forming rounded angle, ceasing suddenly at about middle and leaving a slight denticular prominence. Elytra black, with large, irregular, ochraceous marks that cover half the surface; with series of fine punctures near suture, coarser towards sides, especially in middle. Pygidium ochraceous. Legs slender, black; femur with a pale mark in front; tibiae with a long, pallid ring near base; basal joint of tarsi elongate, pallid, but black at tip. Metasternum with a large, pallid spot on each side; ventral segments with two rows of spots. Antennae slender in male, about 8 mm long, club very elongate, scarcely broader than preceding joints. Intermediate joints of antennae darker in color in female, piceous yellow; club, though very elongate, not so slender as in male (Sharp, 1891).

Additional description in other papers: Rostrum much longer than wide, flattened, rugose, with a median and latero-median carina behind antennal insertions; lateral carina absent, sides continuously forming an arc from head, narrowing anteriorly to middle and widening apically; eyes oval, converging on frons; antennae reaching behind middle (\varnothing) or behind humeri (\updownarrow) of elytra; club slender. Pronotum with transverse median sulcus, dorsal carina almost straight, lateral carina reaching to middle, carinulae distinct. Elytra weakly arched and marginate at base. Mesosternal process wide, subtruncate. First ventrite with a short median carina in male. Tarsi with 1st tarsomere slightly longer than remaining tarsomeres taken together (Morimoto, 1980).

MEASUREMENTS: Body length (excluding rostrum). 6.1–11.0 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, Japan, Russia (Far East).

KOREA: Central and South.

Specimens examined: 1 ♂, Kwangreung, GG, 1.v.1993; Mt. Myeongseong, Cheolwon, GW, 16.vi. 1999; Bonggaedong, Jejusi, JJ, 27.viii.-3.ix.2005; Donamri, Banpomyeon, Gongjusi, CN, 28.vi.-5.vii. 2005; 2exs., Namjeonri, Namyeon, Injegun, GW, 27.v.-21.vi.2011.

KOREAN RECORD: Park and Woo, 1997; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Tribe Ozotomerini Morimoto, 1972

Gil-jjuk-so-ba-gu-mi-jok(길쭉소바구미족)

Genus Ozotomerus Perroud, 1853: 406.

Gil-jjuk-so-ba-gu-mi-sok(길쭉소바구미속)

Type species: *Ozotomerus maculosus* Perroud, 1853.

Synonym: Dipieza Pascoe, 1859: 331 (Type species: Dipieza waterhousei Pascoe, 1859=Oedecerus

bipunctatus Montrouzier, 1855).

Oedecerus Montrouzier, 1855: 46 (Type species: Oedecerus bipunctatus Montrouzier, 1855).

Antennal scrobes dorso-lateral, contiguous with eyes; body cylindrical; antennomeres 4 abnormally large in male. Mandibles without a toothed cutting edge on ventral side. Rostrum short and parallel-sided. Dorsal prothoracic carina basal and touching elytra.

Number of species: 12 species (1 species in Korea).

DISTRIBUTION: Palaearctic.

12. Ozotomerus japonicus laferi Egorov, 1986 (Pls. 2-2, 11-12)

Buk-bang-gil-jjuk-so-ba-gu-mi(북방길쭉소바구미)

Ozotomerus japonicus laferi Egorov, 1986: 15.

TL: Russia - Ussuri.

Description: Body cylindrical, 3.2 times as long as wide, blackish-brown and covered with whitish, yellowish, and dark brown pubescence. Femora dark brown, tibiae pale brown, tarsi black. Rostrum much shorter than wide, carinate anteriorly and laterally. Anterior margin of rostrum concave at middle. Eyes round and slightly concave anteriorly. Antennal scrobes dorso-lateral, contiguous with eyes; body cylindrical; antennomeres 4 abnormally large in male. Antennal club compactly articulated. Mandibles without a toothed cutting edge on ventral side. Pronotum almost quadrate, dorsal carina basal, lateral carina 2/3 of lateral margin, basal angle acute and basal carinula short and slightly apart from basal angle. Scutellum invisible. Elytra parallel-sided without any projection. Large, heart-shaped pubescent marking on basal area, wide, blackish, transverse band behind it. Declivity covered with whitish pubescence. 1st tarsomere 2 times as long as 2nd; 3rd tarsomere deeply bilobed; 5th tarsomere as long as 1st.

MEASUREMENTS: Body length (excluding rostrum). 5.1–9.5 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, China, Russia (Far East).

Korea: Central and South.

Specimens examined: Mt. Okgyesan, 23.vii.1943; Cheongryangri, Seoul, 25.vi.1969; Cheongryangri, Seoul, 24.vi.1969; Cheongryangri, Seoul, 19.vii.1970; Jinju, GN, 27.vii.1984; Suwon, GG, 18.vii.1988;

Jinju, GN, 22.vi.1984; Doamub, Pyeongchang, GW, 29.vi.1985; 2exs., Mt. Baekunsan, Dapgok, JN, 22.vi.1991; Suwon, GG, 29.vi.1992; 2exs., Mt. Yeogisan, Suwon, GG, 2.vii.1992; 3exs., Mt. Yeogisan, Suwon, GG, 4.vii.1992; Mt. Yeogisan, Suwon, GG, 14.vii.1992; 2exs., Mt. Yeogisan, Suwon, GG, 15.vii.1992; Mt. Yeogisan, Suwon, GG, 17.vi.1993; Mt. Yeogisan, Suwon, GG, 17.vi.1993; Mt. Yeogisan, Suwon, GG, 21.vi.1993; Mt. Yeogisan, Suwon, GG, 15.vii.1993; Namhae, GN, 18.viii.1993; Suwon, GG, 1.vi.1994; Sahagu, Busan, 8.viii.1994; Mt. Yeogisan, Suwon, GG, 24.vii.1995; Ganghwa, GG, 28.vii.1995; Suwon, GG, 28.vii.1995; Mt. Yeogisan, Suwon, GG, 22.vii.1996, S.H. Lee; Mt. Bangtaesan, Inje, GW, 23.vi.1996; Mt. Yeogisan, Suwon, GG, 27.vi.1996; Suwon, GG, 14.ix.1996; Suwon, GG, 5.vi. 1997; Suwon, GG, 28.vii.1997; Mt. Kwanggyo, GG, 22.vii.1997; Seodaejeon, CN, 28.viii.1997; S.W. Park; Gohyeonmyeon, Namhaegun, GN, 24.viii.1998; Jingyomyeon, Hadonggun, GN, 29.vii.1998; 2exs., Goyangdong, Deokyanggu, Goyangsi, GG, 26.vi.2007; Gabcheonri, Cheongilmyeon, Hoengseonggun, GW, 26.vi.2009; Mt. Surisan, Gunposi, GG, 15.vii.2009; Eoronri, Seoseokmyeon, Hongcheongun, GW, 19.viii.2009; Joyangri, Dongsanmyeon, Chuncheonsi, GW, 14.vi.-7.vii.2011.

KOREAN RECORD: Senoh, 1987; Hayashi et al., 1994; ESK/KSAE, 1994; Egorov, 1996; Park et al., 2001; Hong et al., 2001; Park et al., 2010.

Remarks: This subspecies is somewhat different from O. japonicus japonicus in the 4th antennomeres, lateral carina of elytra, and tegmen structure of male.

Tribe Platyrhinini Imhoff, 1856

Neop-jeok-ju-dung-i-so-ba-gu-mi-jok(넓적주둥이소바구미족)

Genus Aphaulimia Morimoto, 1972: 35.

Eol-ruk-so-ba-gu-mi-sok (얼룩소바구미속)

Type species: Tropideres debilis Sharp, 1891.

Head not constricted behind eyes; rostrum neither carinate nor sulcate, broader than long, flat; antennal scrobes invisible from above; eyes oval, convex, encroaching on frons, the distance between them nearly half the width of rostrum; antennae reaching humeri in both sexes, club broader than funicle, more or less loosely segmented. Prothoracic carina nearly straight, angulate on each side and reaching middle of thorax, carinulae entire. Elytra with straight base. Derm reddish to dark reddish-brown with greyish or yellowish-grey patches (Morimoto, 1972).

Number of species: 7 species (1 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

13. *Aphaulimia debilis* (Sharp, 1891) (Pls. 3-13, 11-13)

Eol-ruk-so-ba-gu-mi(얼룩소바구미)

Tropideres debilis Sharp, 1891: 311.

TL: Japan - Junsai, Chiuzenji.

Original description: Fuscus, pallido-rofu-signatus, rostro pareius albido-vestitus, antennis testaceis, articulis 30–5 m clavaque fusco-testaceis; protorace subconico, carina subrecta ad basin approximata. Long. Rostro porrecto 4 mm.

Antennae slender, with elongate, loosely-articulated club, the first joint of which is longer than either of the other two, these subequal in length. Rostrum quadrate, flat, head sparingly clothed with white pubescence; eyes widely distant posteriorly, convergent anteriorly, but there separated by about half the width of the rostrum. Thorax gently narrowed in front, not impressed nor deplanate on disc, largely marked with rather indefinite pallid spots; carina placed very near base, sharply elevated, straight, joining lateral margin by a sharply-marked rectangle. Elytra destitute of elevations, fuscous, heavily marked with pallid maculae of angular form, and of a faint pink tinge. Legs rufescent, vaguely variegate. Prosternum very short. Middle coxae widely separated (Sharp, 1891).

Additional description. Body brown to pale brown. Rostrum 1.5 times wider than long. Pronotum with two black spots on yellowish patterns at each lateral area. Basal carinula short but connected posteriorly with basal margin. Lateral carina reaching pleural suture. 1st tarsomere of fore and hind legs 2.5 times longer than 2nd tarsomere. 1st tarsomere of mid legs 3 times longer than 2nd. Ventrites slightly depressed along middle in male.

MEASUREMENTS: Body length (excluding rostrum). 3.0–3.9 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, Japan, Russia (East Siberia, Far East).

Korea: Central and South.

Specimens examined: Mt. Baekun, Dapgok, 15.viii.1993; Piagol, Mt. Jiri, 14.vi.1997; Mt. Odae, Bukdaesa, GW, 2.vii.1998; Songchonri, Joanmyeon, Namyangjusi, GG, 16–30.vii.2009; Yeonhari, Yeongwoleub, Yeongwolgun, GW, 17.vii.–6.viii.2011.

KOREAN RECORD: Senoh, 1987; Hayashi et al., 1994; ESK/KSAE, 1994: 208, 209; Park, Hong, Woo and Kwon (2001); Hong et al., 2001; Paek et al., 2010.

Genus Oxyderes Jordan, 1928: 114

Heun-jeom-so-ba-gu-mi-sok (흰점소바구미속)

Type species: *Hypseus frenatus* Jordan, 1897.

Original description: The basal margin of the elytra is distinctly "marginate" in the allied genera, i.e. the channel which runs from the sides across the shoulder-angle is continued to the scutellum; in the species I separate here as a new genus the channel is obsolete on the dilated portion of the base. Besides the genotype here belong *Hypseus cyrtus* Jord. (1912) which probably is the same as *Stenocerus collaris* Gylh. (1833), *Apatenia tellellata* Kirsch. (1875), *Apatenia fastigata* Jord. (1924), and the following new species (Jordan, 1928).

Additional description: Club broader than funicle; head not constricted behind eyes. Channel along anterior margin of elytra obsolete on dilated position; angles of prothoracic carina acute;

rostrum strongly carinate on each side. Scrobe ventral in positon (in the key to genera of tribe Nessiarini; Morimoto, 1972).

Number of species: 10 species (1 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

14. Oxyderes fastigatus (Jordan, 1924)

Ga-seum-huin-jeom-so-ba-gu-mi (가슴흰점소바구미)

Apatenia fastigatus Jordan, 1924: 236.

TL: Formosa.

Redescription: Body blackish-brown, except for somewhat reddish-brown funicles and basal part of tibiae. Rostrum wider than long, widest at antennal insertion. Antennal funicle more slender, club loosely articulated. Pronotum widest at base and narrowing anteriorly. Dorsal carina linear in middle and curved posteriorly at each side. Pronotal declivity with large, whitish pubescent patch at middle in front of scutellem; scutellum small. Legs somewhat long, 1st tarsomere longer than 2nd; 3rd tarsomere small and bilobed; 5th tarsomere more slender than others. Elytra 1.5 times longer than wide, slightly narrowing and gently arched posteriorly. Odd-numbered intervals tesselate with whitish and blackish pubescent spots. A pair of somewhat large, blackish spots on 3rd interval at middle.

MEASUREMENTS: Body length (excluding rostrum). 5.7–8.5 mm (Egorov, 1996).

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, China, Japan, Russia (East Siberia, Far East), Taiwan.

KOREA: North (?).

KOREAN RECORD: Egorov, 1996; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Remarks: We were unable to examine any Korean specimens. On the 1st to 4th abdominal segments of this species there is an obscurely spotted, lateral, ashy pubescence, and in males of this species, a small tubercle is present before the metacoxa (Shibata, 1963a).

Genus Phaulimia Pascoe, 1859: 437.

An-gyeong-so-ba-gu-mi-sok (안경소바구미속)

Type species: *Phaulimia ephippiata* Pascoe, 1859.

Head sharply constricted on each side at posterior edge of eye, forming rectangular inflection, posterior edges of eyes higher than surface of head; shallow depression extending downwards from constrictions. Eyes large, close to each other on frons; eyes of male usually closer than those of female. Elytra with rectangular shoulders. Prothoracic carina straight and angulate on each side (in the key to genera of tribe Nessiarini; Morimoto, 1972).

Number of species: 38 species (1 species in Korea). Distribution: Oriental, Palaearctic, Australian.

15. *Phaulimia rufobasis* Morimoto, 1981 (Pls. 3-15, 11-15)

An-gyeong-so-ba-gu-mi(안경소바구미)

Phaulimia rufobasis Morimoto, 1981: 88.

TL: Japna - Honshu, Kyushu.

Original description: Male. Blackish-brown to reddish brown. Head blackish-brown to reddish brown, with luteous-grey pubescent spots, three between hind margin of eyes and one on frons; rostrum reddish-brown with luteous-grey pubescence; pronotum blackish-brown with reddishbrown spots, luteous-grey pubescence forming a median stripe, widely interrupted at apex and in middle, ash-grey pubescence forming indistinct patches; elytra dark brown with reddish bases; dorso-posterior area between fourth intervals and behind median tubercles slightly rufescent, alternate intervals tessellated with blackish-brown and ash-grey spots, the latter more or less luteous on reddish areas; black spot on subbasal swelling of second and often fourth intervals distinct, median black fascicle on tubercle of third interval oblong-oval, conspicuous; third, fifth, and seventh intervals with small black spots on weak tubercles, subapical black spot on third interval indistinct; ventral side with greyish pubescence; metepisterna greyish on anterior and posterior corners; femora greyish with wide, brownish ring; tibiae with dark brown pubescence on apical two-thirds, with a greyish, subbasal ring, visibly reddish at base. Head slightly depressed, densely punctate, frons between eyes 1/6-1/7 times as wide as rostrum, the latter twice as wide as long, with a short median carina; eyes twice as long as wide. Antennae with proportions in length from base as 15:15:14:11: 11:9:8:7:15:11:17, width of eighth 7, tenth 14; club rather compact. Pronotum transverse (15:11), sides sinuate before angles of carina, disk strongly punctate, interstices about as wide as the diameter; dorsal carina weakly convex with small notch in middle, very narrowly rounded or almost angulate at sides, lateral carinae reaching anteriorly just beyond middle, longitudinal carinulae entire. Scutellum small, rounded, similarly pubescent as nearby elytra. Elytra 1.5 times as long as wide, parallelsided on basal three-fourths, strongly arched at base, subbasal swellings moderate, as high as median tubercles on third interval. Pygidium slightly wider than long, rounded at apex, strongly punctate. Pro-, meso-, and metathorax on ventral side strongly punctate, except for smooth median area of metasternum. Venter punctate at sides. Pretarsal claws of hind legs not dentate. Female. Frons between eyes 1/3 times as wide as rostrum. All claws similarly dentate (Morimoto, 1981).

MEASUREMENTS: Body length (excluding rostrum). 3.0–3.5 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, Japan, Russia (Far East).

Korea: Central and South.

Specimens examined: Mt. Sobaeksan, GB, 30.v.1989; Mt. Seolaksan, GW, 9.viii.1976; Piagol, Mt. Jirisan, 14.vii.1997; Mt. Sobaeksan, Gagokmyeon, Danyanggun, CB; Mt. Ungilsan, Namyangjusi, GG, 1.x.2009; Mt. Gariwangsan, Jeongseoneub, Jeongseongun, GW, 11.vii.2011.

KOREAN RECORD: Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Remarks: Park et al. (2001) misidentified this species with *Phaulimia confinis* (Sharp); other records on *P. confinis* only referred to that record. Therefore, the species *P. confinis* is not distributed in the Korean peninsula.

Genus *Ulorhinus* Sharp, 1891: 300.

Neop-jeok-ju-dung-i-so-ba-gu-mi-sok(넓적주둥이소바구미속)

Type species: *Ulorhinus funebris* Sharp, 1891.

Rostrum truncate in front, flat, not dilated at extremity. Eyes convex, widely separated, slightly convergent in front. Thoracic carina nearly straight, moderately distant from base, continuing forwards at sides for less than half the length. Scrobes deep, prolonged inwards for a short distance, terminating in sharply-defined angle. Middle coxae moderately separated (Sharp, 1891). Prothorax stongly punctate above and below. Basal longitudinal carinula of pronotum horizontal, forming acute angle with dorsal carina or obsolete. Club of antenna compact or nearly so, article 10 not longer than broad. Rostrum about twice as long as broad, its apical margin slightly incurved at middle or straight. In many species, third interspace of elytra convex or pustulate (Jordan, 1928).

Number of species: 17 species (1 species in Korea). DISTRIBUTION: Afrotropical, Oriental, Palaearctic.

16. *Ulorhinus funebris* Sharp, 1891 (Pl. 3-16)

Geom-eun-neob-jeok-ju-dung-i-so-ba-gu-mi(검은넓적주둥이소바구미)

Ulorhinus funebris Sharp, 1891: 301.

TL: Japan - Chiuzenji.

Original description: Antennae short and rather slender, black, piceous at base; first joint short, scarcely as long as second, third to sixth slender, seventh and eighth slightly broader, the latter short, ninth longer than broad, tenth transverse, terminal joint also rather short. Rostrum with very shallow oval depression at middle, rugose, with scanty dark vestiture. Thorax gently narrowing in front in a slight curve, black, with few white setae antero-medially, and other setae at base in front of scutellum; disc not impressed; thoracic carina nearly straight, joining lateral margin by a rectangle. Elytra rather short, with very indistinct elevations near suture, with indistinct white spots scattered on surface. Legs rather stout, tibiae and tarsi not variegate (Sharp,1891).

Additional description. Body blackish-brown. Elytra with a pair of low swellings at basal area. Odd-numbered intervals tessellate with whitish and blackish pubescent patches. 1st tarsomere 2 times as long as 2nd; 3rd tarsomere very small but clearly visible and bilobed; Pretarsal claws with an acute denticle at inner margin. Procoxa almost touching. Mesosternal process wide and truncate between coxae.

MEASUREMENTS: Body length (excluding rostrum). 4.2–4.9 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea (new record), Japan, Russia (Far East - Kuriles).

KOREA: Central, South.

Specimens examined: 1^º, Jeongryeongchi, Mt. Jiri, Namwon-si, JB, 2.vi.−6.ix.2011; 1^º, Chun-

cheon-si, GW, 18.vi.-2.vii.2009.

REMARKS: This species is newly recorded to the Korean fauna in this study.

Tribe Platystomini Pierce, 1916

Huin-byeol-so-ba-gu-mi-jok (흰별소바구미족)

Key to the genera and species of tribe Platystomini

- Eyes slightly emarginated; scrobe separate from eye; rostrum almost as wide as long; pronotum with tubercles on dorsal area
 Platystomos

Genus Phloeobius Schoenherr, 1823

Huin-bol-gi-so-ba-gu-mi-sok (흰볼기소바구미속)

Type species: Anthribus griseus Fabricius, 1792=Ptinus gigas Fabricius, 1775.

Synonym: *Branconymus* Hoffman, 1959: 341 (Type species: *Branconymus vayssierei* Hoffmann, 1959 = *Phloeobius hypoxanthus* Jordan, 1911).

Head and rostrum continuously convex; eyes very large, horizontally placed, strongly protruding laterally beyond sides of head, reniform, lower margins conspicuously emarginate at middle, almost twice as broad as narrowest part of interocular area; interocular area sub-V-shaped, less than half as broad at apex as at base. Rostrum, excluding mandibles, much shorter than head, about half as long from apex of eyes to apex of labrum, similar to breadth between subscrobal tubercles; apical margin rather deeply and roundly emarginate behind labrum, which is convex and strongly rounded distally; mandibles slightly sinuous internally and not toothed; antennae inserted on sides at base, dorsal margin of scrobe contiguous with lateral lobe of eye; subscrobal tubercles large and conspicuous. Antennae extending only to base of elytra in females, but slightly longer than body in males; antennomeres as follows in males: first antennomere large, subconical, as broad at base as long, as long as two; three somewhat less than four times as long as two and as long as four plus

half of five; four slightly longer than five to eight combined; five to eight subequal in length, nine about four fifths as long as eight and about one fourth longer than ten; nine and ten somewhat flattened, eleven about as long as eight plus nine, styliform, slightly sinuous; antennomere as follows in females: first and second as in male, third and fourth subequal in length, each twice as long as second, four not quite as long as five plus six, five slightly longer than six, six and seven subequal in length; eight as long as seven plus half of six, somewhat flattened and distinctly broader than seven, not quite as long as nine and only half as broad; nine to eleven forming a distinct, flattened, asymmetrical club, dorsal margin almost straight, ventral margin serrate; nine about as broad as long at apex, slightly longer than ten which is as broad as long; eleven slightly longer than nine and only about three fourths as broad. Prothorax convex, broader than long, dorsal carina antebasal, lateral carina forming an almost right angle with basal carina and terminating slightly beyond middle. Scutellum visible. Elytra subparallel-sided, slightly more than twice as long as prothorax, serially punctate. Legs with femora strongly clavate, edentate; tibiae rather slender; first tarsomere slightly longer than second, third half as long as second and deeply immersed in second, giving tarsi a 3-segmented appearance; fourth tarsomere as long as the first; pretarsal claws with a slender tooth before middle. Sternum with all coxae separated, hind coxae narrowly separated by triangular intercoxal process, transverse and extending from close to median line almost to elytra. Body densely pilose above and below; marmorated with paler and darker patches above (Zimmermann, 1938).

Number of species: 42 species (1 species in Korea). Distribution: Afrotropical, Oriental, Palaearctic.

Remarks: Although Zimmermann (1938) described that the dorsal carina of the pronotum of this genus is antebasal, the type species of this genus and all of the species distributed in Korea and Japan have the dorsal carina on the basal margin (basal type).

17. Phloeobius mimes Sharp, 1891 (Pls. 3-17, 11-17)

Heun-bol-gi-so-ba-gu-mi (흰볼기소바구미)

Phloeobius mimes Sharp, 1891: 319.

TL: Japan - Nagasaki.

Body dark reddish-brown except reddish brown legs and 2nd to 8th antennomeres. Head and pronotum reticulated. Rostrum roughly reticulated and wider than long. Compound eye emarginated and surrounding the antennal socket. 1st antennomere stout. Antennae reaching middle of body. Pronotum with four white pubescent spots on disk. Dorsal and lateral carinae and basal carinulae saw-toothed. Dorsal carina contacting anterior margin of elytra and connected to lateral carina and basal carinulae almost perpendicularly. Elytra with parallel-sided and gently rounded from declivity. Odd-numbered interstriae dotted with whitish pubescent spots and dark brown spots. Even-numbered interstriae covered with yellowish-brown pubescence. Elytral declivity covered with whitish pubescence (Park et al., 2012).

Additional description: Body cylindrical. Rostrum short, antennal socket inserted laterally. Antennal club dark brown; 11th antennomere 2 times as long as 10th antennomere. Lateral carina

extending 2/3 of entire length of lateral margin. Coxae clearly separated. 1^{st} tarsomere almost 2 times as long as 2^{nd} , 3^{rd} bilobed.

MEASUREMENTS: Body length (excluding rostrum). 6.0–6.8 mm.

BIOLOGICAL NOTES: Unknown. **DISTRIBUTION:** Korea, Japan.

KOREA: South.

Specimens examined: 1♂, Dapcheon-ri, Ibanseong-myeon, Jinju-si, GN, 17.vii.-3.viii.2009; 1♂,

Pungsan-ri, Da-do-myeon, Naju-si, JN, 24.vi.-30.vi.2008.

REMARKS: This species is newly recorded to the Korean fauna in this study.

Genus Platystomos Schneider, 1791: 21.

Huin-byeol-so-ba-gu-mi-sok (흰별소바구미속)

Type species: Curculio albinus Linnaeus, 1758.

Synonym: *Macrocephalus* Olivier, 1789: 36 (Homonym; preoccupied by Swederus, 1787; Type species: *Curculio albinus* Linnaeus, 1758).

Platystomos Hellwig, 1792: 393 (Homonym; Type species: Curculio albinus Linnaeus, 1758).

Anthrodus Megerle, 1826: 32 (Type species: Anthribus albinus sensu auct.).

Anthotribus Gistel, 1856: 375 (non Hoffmann, 1803, nec Agassiz, 1846; Type species: Curculio albinus Linnaeus, 1758).

Anthribus: Thomson, 1856: 375 (non Geoffroy, 1762, nec Fabricius, 1790; Type species: *Curculio albinus* Linnaeus, 1758).

Number of species: 15 species (2 species in Korea).

DISTRIBUTION: Afrotropical, Australian, Oriental, Palaearctic.

18. *Platystomos albinus* (Linnaeus, 1758)

Cham-huin-byeol-so-ba-gu-mi(참흰별소바구미)

Curculio albinus Linnaeus, 1758: 385.

Platystomus desertus Schilsky, 1907: 79.

Anthribus thierriati Viturat, 1895: 110.

Platystomus uniformis Reitter, 1916a: 7.

TL: Europe.

Redescription: **Male**. Body elongate-oval, subparallel-sided, derm black. Dorsal surface of head covered with white pubescence. Rostrum and frons uneven, salebrous. Frons with a longitudinal

keel in middle and sulcate at beginning of rostrum. After basal sulcus, short keel continuing to middle of scrobes, carinate submarginally before eyes and V-shaped ridge behind labrum. Lateral margin of rostrum carinated and convex. Antennae stout and long, reaching preapical white patch of elytra; each funicular article with white pubescent band on apical area; 8th antennomere with broad white band covering apical 2/3 part; 9th antennomere with white band at base. Pronotum mostly coverd with brownish pubescence, with a white T-shaped patch along anterior margin; three tubercles in middle with black and dark brown, long setal fascicles. Elytra covered with brownish pubescence, subbasal area weakly tuberculate with blackish setal fascicles; a pair of whitish patches behind subbasal area, three blackish setal fascicles located along 3rd interval after whitish patch; elytral declivity from last blackish setal fascicle covered with white pubescence. Preapical area slightly tuberculate, apical area covered with dark brown pubescence. Legs with yellowish and whitish band. Middle and hind legs with first tarsomere shorter than remaining ones combined. Pygidium short and wide, visible area covered with brown pubescence. Female. Antennae reaching posterior margin of pronotum, 8th antennomere entirely covered with whitish pubescence, 9th antennomere with white band at base and 10th antennomere black, immaculate. Pygidium mostly covered with brownish pubescence.

MEASUREMENTS: Body length (excluding rostrum). 1.7-2.4 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, China, Europe, Iran, Kazakhstan, Russia.

KOREA: North (?).

KOREAN RECORD: Senoh, 1987; Egorov, 1996.

REMARKS: Although Senoh (1987) and Egorov (1996) confirmed the distribution of this species in

Korea, we couldn't examine any Korean specimens.

19. *Platystomos sellatus longicrus* Park, Hong, Woo and Kwon, 2001 (Pls. 3-19, 11-19)

U-ri-huin-byeol-so-ba-gu-mi (우리흰별소바구미)

Platystomos sellatus longicrus Park, Hong, Woo and Kwon, 2001: 182. Platysotomos sellatus: Kwon and Lee (nec Roelofs), 1986: 65.

TL: Korea.

Original description: **Male**. Body elongate-oval, subparallel-sided, derm black. Dorsal surface of head covered with white pubescence; rostrum and frons uneven, salebrous; rostrum sulcate in middle of scrobes, carinate submarginally before eyes, with V-shaped ridge behind labrum; lateral margin of rostrum carinate and convex. Antennae slender, reaching preapical white patch of elytra; each antennomere of funicle with white pubescent band on apical area; 10th segment with white band at base. Pronotum mostly coverd with brownish pubescence, with a white T-shaped patch along anterior margin; three tubercles in middle with black and light brown, long setal fascicles. Elytra covered with brownish pubescence, subbasal area weakly tuberculate with blackish setal fascicles surrounding with brownish setae; a narrow asteroid patch behind subbasal area; after asteroid patch, three blackish setal fascicles located along 3rd interval; apical area from last setal

fascicle covered with white pubescence; preapical area tuberculate. Legs with whitish band; middle and hind legs with first tarsomere almost same length as remaining ones combined. Pygidium with visible area as long as invisible area which is covered by elytra. **Female**. Antennae reaching posterior margin of pronotum; 10th antennomeres black, immaculate. Pygidium mostly covered with brownish pubescence (Park, Hong, Woo and Kwon, 2001).

MEASUREMENTS: Body length (excluding rostrum). 6.5–10.0 mm.

BIOLOGICAL NOTES: Adults are usually collected on woodpiles of broadleaf trees.

DISTRIBUTION: Korea. Korea: Central and South.

KOREAN RECORD: Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Remarks: 9th antennomeres with white band at base and 10th antennomere without white band in males (a mistake in the original description). 8th antennomere entirely covered with whitish pubescence and 9th antennomere without white band in females.

Tribe Sintorini Lacordaire, 1865

Jul-mu-neui-so-ba-gu-mi-jok (줄무늬소바구미족)

Genus Sintor Schoenherr, 1839: 148.

Jul-mu-neui-so-ba-gu-mi-sok (줄무늬소바구미속)

Type species: *Sintor quadrilineatus* Fahraeus, 1839.

Synonym: *Rhinanthribus* Motschulsky, 1875: 241 (Type species: *Rhinanthribus dispar* Motschulsky, 1875=*Sintor bicallosus* Lacordaire, 1866).

Blabirhinus Sharp, 1891: 299 (Type species: Blabirhinus dorsalis Sharp, 1891).

Antennae moderately elongate, with definite, rather short, three-jointed club; terminal in their insertion, second joint elongate, much longer than first; eyes rather large, elongate, extending forwards but not inwards, very widely separated, very finely facetted. Thoracic carina distant from base, curved forwards on each side in an extremely gentle sweep, only very slightly prolonged anteriorly along the side. Middle coxae moderately widely separated (Sharp, 1891).

Number of species: 43 species (1 species in Korea).

DISTRIBUTION: Afrotropical, Australian, Oriental, Palaearctic.

20. Sintor dorsalis (Sharp, 1891) (Pls. 3-20, 11-20)

Jul-mu-neui-so-ba-gu-mi (줄무늬소바구미)

Blabirhinus dorsalis Sharp, 1891: 300.

Platysotomos sellatus: Kwon and Lee (nec Roelofs), 1986: 65.

TL: Japan - Higo.

Original description: Elongate-oblong, rather flat. Antennae in female quite as long as rostrum and thorax, in male rather longer; club rather broad, compressed, intermediate joint transverse. Thorax rather long, greatly narrowed in front, marked along the middle with two rather vague fuscous lines, which converge in front, and on each side with a shorter line; the prebasal carina distant from the base, and very prominent on each side. Scutellum covered with paler tomentum. Elytra marked with two short oblique dark stripes, converging towards the suture and behind each line with a small cruciform dark mark. Under surface not variegate, almost uniform in colour with the upper surface (Sharp, 1891).

Additional description: Body rather convex dorsally, black, covered with light greyish-brown pubescence; latero-ventral sides of head and pronotum, below elytral shoulders brown to black; darkened pubescent markings on upperside as follows: two brown stripes on frons of head (between eyes) gradually divergent posteriorly and connected with pronotal blackish ones, which reach the base, and sometimes extend to elytral basal area; stripes becoming vague and light in color, then running obliquely behind shoulders, where they merge with lateral black dots. Two dark median streaks situated obliquely from near suture to 8th or 9th interspaces of elytra (not common), the streak bordered by light brown (therefore it is ill-defined in outline, but the streak itself is much more prominent than other marks). Another spot placed at anteapical area of each elytron, somewhat variable in form and size, but not forming a confluent common mark uniting each other. Some blackish dots on the elytra dispersed on sutural and lateral interspaces. Rostrum about 1.5(3) or 1.3(4)times as long as apical width, bearing a cariniform ridge on each side; shallowly depressed from apex to frons between ridges; depression with a short median carina. Antennae darkened (shafts more or less reddish) except almost lacking on the three club joints; antennae long in \Im , completely crossing base of elvtra; 1st article large, subglobular, 2nd shorther than 3rd, 3rd longest and subequal in length to 4th, 5th to 7th gradually shortening, 8th shortest, gently widening towards apex and receiving three club joints; 9th nearly as long as 8th, subtriangular, slightly wider at apex than long or at least as long as wide; 10th transverse, more than twice its width, and about half the length of terminal one, which is slightly longer than 9^{th} , nearly as long as wide, rounded at apex; in ?, hardly touching base of pronotum; 2nd, 3rd, and 4th subequal in length, 8th very short, small, less than half as long as 9th. Pronotum about 1.4 times as wide as long at widest point, slightly and transversely depressed along dorsal carina, somewhat elevated before depression and faintly flattened in front of elevation; dorsal carina distinctly angulate in middle, basal transverse carinula interrupted or obsolete medially (as far as the author examined in a couple of specimens); basal longitudinal carinula reduced in front. Scutellum greyish, prominent. Elytra parallel from shoulder to apical third, almost evenly convex apart from median areas (between both 3rd interspaces from behind subbasal swelling to apex), which are flattened or faintly depressed along suture, interspaces rather flat. Pygidium as long as (\nearrow) or slightly longer (?) than its basal width. Prosternal process extending beyond procoxae and terminating at prosternal basal side as a cariniform ridge. Abdomen in ♂ slightly bending ventrally at two or three apical segments, in $\stackrel{\circ}{+}$ the anal segment rather short, not

distinctly longer than penultimate one. A median spot on femur, three dots on tibia, and apices of tarsal joints brown or nearly so (Shibata, 1969).

MEASUREMENTS: Body length (excluding rostrum). 4.0–5.3 mm.

BIOLOGICAL NOTES: Several individuals were collected from dead branches of Pueraria thunbergian Benth in Korea.

DISTRIBUTION: Korea, China, Japan.

KOREA: Central, South, Jeju Is.

Specimens examined: Kwangreung, GG, 9.vi.1974; Mt. Sobaeksan, 20.vii.1977; Mt. Hwaagsan, GG, 23.v.1978; Mt. Weonhyosan, GN, 31.v.1980; Mt. Obongsan, GN, 17.v.1981; Mt. Juheulsan, 5.vi. 1983; Seongpanak, JJ, 12.vi.1983; Mt. Palgongsan, GB, 1.vi.1985; Mt. Palgong, GB, 20.vi.1985; Mt. Palgong, GB, 28.vi.1985; Mt. Unmunsan, GB, 18.v.1985; Kwangreung, GG, 9.v.1987; Chuncheon, GW, 1.vi.1993; Mt. Sudosan, Kimcheon, GB, 1.ix.1995; Mt. Bukhansan, Dobonggu, GG, 9.v.1998; Mt. Namhansan, Seongnam, GG, 3.v.1998; Goyangdong, Deokyanggu, Goyangsi, GG, 23.vii.-24.viii. 2007; Yeonhari, Yeongwoleub, Yeongwolgun, GW, 6.viii.2011.

KOREAN RECORD: Kwon and Lee, 1986; ESK/KSAE, 1994; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Tribe Trigonorhinini Valentine, 1998

Al-lak-so-ba-gu-mi-jok(알락소바구미족)

Genus *Opanthribus* Schilsky, 1907: 47.

Al-lak-so-ba-gu-mi-sok(알락소바구미속)

Type species: *Brachytarsus tessellatus* Boheman, 1829.

SYNONYM: Paramesus Fahraeus, 1871: 443 (non Fieber, 1866; Type species: Paramesus lituratus Fahraeus, 1871).

Kimenus Wolfrum, 1961: 319 (Type species: Kimenus submetallicus Wolfrum, 1961).

Antennae inserted under lateral carina of rostrum. Darsal carina of pronotum basal. Rostrum rapidly narrowing anteriorly and strongly carinate at side. Eyes more or less convergent on frons, rostrum short and lateral carina of rostrum prolonged posteriorly to middle of eye.

Number of species: 14 species (1 species in Korea). **DISTRIBUTION**: Afrotropical, Oriental, Palaearctic.

21. *Opanthribus tessellatus* (Boheman, 1829) (Pls. 4-21, 11-21)

Al-rak-so-ba-gu-mi(알락소바구미)

Brachytarsus tessellatus Boheman, 1829: 119.

Brachytarsus fallax Perris, 1874: 13. Opanthribus tessellatus var. brunneipennis Reitter, 1916: 8.

TL: Styria.

Redescription: Body dark brown, tibiae, tarsi and basal antennomeres of antennae pale brown. Dorsal surface tessellate with whitish, grevish, and dark brownish pubescence. Pronotum with two clear, whitish patches longitudinally at middle. Scutellum covered with whitish pubescence. Elytra tessellate with whitish and brownish pubescence. Head and rostrum densely reticulated. Rostrum rapidly narrowing anteriorly and clearly carinate at sides. Lateral carina of rostrum prolonged to middle of eye. Antennal scape and pedicel much thicker than funicles, each funicle longer than wide and gradually shortening from basal antennomere. Antennal club much wider than funicle; 9th antennomere somewhat long, appearing as an inverted triangle; 10th wider than long, 11th antennomere longer than wide; 11th antennomere with constriction at apical 3/4 area. Pronotum widest at base, slightly narrowing anteriorly and then arched. Dorsal carina slightly separated from basal margin and weakly angulate at middle. Basal angle of carina slightly obtuse, lateral carina reaching to 1/3 part of lateral margin. Elytra without projection, except low swelling on basal area. Lateral margin of elytra almost straight and gently arched from 2/3 of latera margin. Prosternal process acute and each coxa adjacent to each other; mesosternal process truncate between coxa. Femora clavate, tibiae almost straight and slightly widening. First tarsomere slightly longer than 2nd; 3rd tarsomere deeply bilobed. Venter longitudinally concave at middle in male.

MEASUREMENTS: Body length (excluding rostrum). 2.1–3.5 mm.

BIOLOGICAL NOTES: Adults are usually observed on dead oak trees.

DISTRIBUTION: Korea, China, Europe, Japan, Morocco, Russia (East Siberia, Far East), Tunisia.

KOREA: Central and South.

SPECIMENS EXAMINED: Samnammyun, GN, 28.v.1980; Mt. Juwangsan, 27.vii.1984; Cheongsong, GB, 27.iv.1994; Bongpyung, Pyungchang, GW, 23.vii.1998; Daejeon, CN, 15.v.1998; Mt. Baekunsan, Dapgok, JN, 27.vii.1998; Mt. Bulamsan, Gonreungdong, Nowongu, Seoul, GG, 11–25.vi.2008.

KOREAN RECORD: Senoh, 1987; Hayashi et al., 1994; ESK/KSAE, 1994; Egorov, 1996; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Tribe Tropiderini Lacordaire, 1865

Tteok-so-ba-gu-mi-jok (떡소바구미족)

Key to the genera of tribe Tropiderini

- Ventral side of rostrum rectangular to head in profile, without a deep, transverse sulcus, with or without a median keel; rostrum slightly longer than wide
 2
- 2. Rostrum constricted at about apical 1/3; prothoracic dorsal carina strongly angulate in middle, deeply sinuate at sides; each elytron with a distinct longitudinal tubercle at base *Gonotropis*
- Rostrum subparallel-sided; prothoracic dorsal carina nearly straight or slightly arcuate anterior-

- - Genus Androceras Jordan, 1928: 83.

Pyo-beom-mu-nui-so-ba-gu-mi-sok (표범무늬소바구미속)

Type species: Mucronianus khasianus Jordan, 1903.

₹, Generi. Mucronianus Jord. (1894) dicto similis; rostro utrinque sub oculum sulco brevi instructo, antenna maris compressa, segmento 8 plus minus longitudine clavae, pronoti margine antico recto, elytrorum basi singulatim rotundata, pygidio utriusque sexus simplice, abdomine maris haud deplanato.

The short, longitudinal, basal carinula of the pronotum more or less oblique, descending posteriorly, forming a more or less acute angle with the small, adbasal, transverse carinula (Jordan, 1928). Rostrum separated from head by a deep, transverse sulcus on ventral side, nearly as long as wide, flat and without a median keel on ventral side. Rostrum with two carinae on each side before eye. Antennal scrobes invisible from above, entirely lateral or latero-ventral. Hind tibiae without projection. Elytra arcuate at base. Antennae compressed and reaching just beyond or before tip of elytra in males; antennae with compressed club and reaching behind shoulder in females (Morimoto, 1972).

Number of species: 9 species (1 species in Korea).

DISTRIBUTION: Afrotropical, Oriental, Palaearctic.

Remarks: Jordan (1928) described the differences in three genera, *Mucronianus* Jordan, *Androceras* Jordan, and *Nessiodocus* Heller as below:

Mucronianus Jordan, 1894 - Basal margin of elytra straight, ♂-antenna normal, with a club of three segments; ♂-pygidium produced into a conical projection.

Androceras Jordan, 1928 - Basal margin of each elytron rounded, ♂ pygidium without projection. Nessiodocus Heller, 1925 - Basal margin of each elytron rounded, ♂-antenna and ♂ pygidium normal.

22. Androceras flabellicorne (Sharp, 1891) (Pl. 4-22)

Pyo-beom-mu-nui-so-ba-gu-mi (표범무늬소바구미)

Tropideres flabellicornis Sharp, 1891: 305.

TL: Japan - Junsai.

Original description: The antennae are black, with the basal joint short, rather shorter than the second, the seventh bearing some white pubescence; in the male the joints from the fifth onwards are dilated and flattened, and on the under side are hirsute; in the female they bear a broad three-

jointed club, the terminal joint being a good deal smaller than those preceding it. The form of the thorax and its carina are like those of *T. albirostris*. The elytra have a very feeble elevation of the surface - not amounting to a tubercle - at the base of each near the suture. The under surface is not variegate. The tibiae are obscurely variegate, the basal joint of the tarsi more distinctly white (Sharp, 1891).

Additional description. Rostrum subquadrate and shortly sulcate from eye; antennal orifice large, semicircular; eyes subcircular and approaching each other anteriorly in both sexes; elytra cylindrical; in male, pygidium simple but median tibia mucronate at inner apical edge as in male of *A. manifestus* (Jordan, 1928). In structure of the rostrum and others, this species combines some characters of *A. laticornis* Jordan and *A. manifestus* Jordan from Tonkin, from which it is at once distinguishable by the antennal features of males in the following details: antennae black, 7th joint with white pubescence, sparse pubescence on other joints, 1st and 2nd short, almost globular, 3rd a little shorter than 4th (longest), both normal or else 4th slightly widening towards apex and subequal in length to 5th; 6th–11th compressed, well developed, and bearing black setae beneath brush; 5th about one-third longer than apical width and as long as 6th, which is triangular, subequal each in length and width; 7th transverse, short but less than twice the length of 6th and about a half as wide as long, its sides rounded; from 8th to 10th gradually shortening and more transverse; 8th a little shorter than 7th and nearly a half as long as 3rd, its apical width about three times as long as its length or nearly so; the lengths of 9th (widest) one-fourth and of 10th merely one-fifth the same as their widths; 11th twice as long as 10th and narrower (Shibata, 1969).

MEASUREMENTS: Body length (excluding rostrum). 7.2 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, China (Hubei, Shaanxi), Japan, Russia (Far East).

KOREA: Central.

SPECIMENS EXAMINED: Kwangreung, GG, 2.x.1966.

KOREAN RECORD: Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Genus Gonotropis LeConte, 1876

Bok-ju-meo-ni-tteok-so-ba-gu-mi-sok (복주머니떡소바구미속)

Type species: Gonotropis gibbosa LeConte, 1876.

Synonym: *Agonotropis* Egorov, 1987: 105 (Type species: *Agonotropis terminassianae* Egorov, 1987). *Basarukinia* Egorov, 1996: 190 (Type species: *Gonotropis insignis* Morimoto, 1980).

Diagnosis: Appendages very short, eyes small, widely separated from each other; rostrum a little longer than wide and constricted at about apical 1/3. Prothoracic dorsal carina strongly angulate and approaching base at middle. Each elytron with a distinct longitudinal tubercle at base. Aedeagus strongly dilated apically (Oda, 1979).

Number of species: 6 species (2 species in Korea).

DISTRIBUTION: Nearctic, Palaearctic.

Key to the species of genus Gonotropis

- Dorsal carina of pronotum moderately angulate at middle and not touching scutellum. Tibia entirely covered with white pubescent spots and patches, except apical area ···· G. terminassianae

23. *Gonotropis gibbosa* LeConte, 1876 (Pls. 4-23, 12-23)

Bok-ju-meo-ni-tteok-so-ba-gu-mi(복주머니떡소바구미)

Gonotropis gibbosa LeConte, 1876: 394. Tropideres crassicornis Sharp, 1891: 306.

TL: Japan - Junsai.

Description: This species has been described as having simple pretarsal claws, but there is a minute tooth. The prothorax shows more primitive characters than Allandrus or Meconemus, as well as *Eurymycter*, in that practically all of the principal thoracic areas are more or less delineated. The anterior margin has a narrow strip which includes the postocular lobes and corresponds to the pretergite. On the venter, viewed from the side, there is a constriction near the apex which may be said to limit the presternite. This line is faintly on the dorsum and indicates the prescutal area above. The well-known prebasal ridge is the limiting line for the base and sides of scutellum. The scutum and scutellum are faintly separable by a transverse elevation extending towards the terminus of the lateral ridge. From this point on to the lateral ridge the only definite suture of the prothorax extends ventrally almost to the coxa and then is flexed backward to the posterior corner of the coxal cavity; this is the pleural suture. In front of it is the episternum and behind it the epimeron. The lateral ridge extends faintly forward from the pleural suture and connects with a very faint transverse line which separates the episternum from the basisternite. The basisternite between the coxae is acutely terminated; its apex just barely separates the coxae and meets the acute apex of the so-called intercoxal piece. This piece is often triangular, but in the present genus it is fused with the epimera. The posterior slope of the dorsum behind the prebasal ridge is divided transversely by a lesser ridge on the declivity, which laterally turns forward and meets the other ridge, thus definitely defining the posttergite. The area behind this is continuous with the epimeron and is probably the postscutellum (Pierce, 1930).

MEASUREMENTS: Body length (excluding rostrum). 4.3–5.1 mm. **BIOLOGICAL NOTES**: The larvae only develop in alder (Frieser, 1981).

DISTRIBUTION: Korea, America, Europe, Russia.

KOREA: Central.

SPECIMENS EXAMINED: $1 \stackrel{\circ}{+}$, Mt. Odaesan, GW, 19.viii.1986; $1 \stackrel{\circ}{-}$, Chuncheon, GW, 30.vii.-13.viii.2009. KOREAN RECORD: Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Remarks: Egorov (1996) mentioned that the photo of the female and figure of the male antennae of *Gonotropis crassicornis* by Morimoto (1980), described from Junsai and celebrated for the islands of Hokkaido and Honshu, matched those of *G. gibbosa*. Therefore, there is a possibility that the *G. crassicornis* is a synonym of *G. gibbosa*.

24. Gonotropis terminassianae (Egorov, 1987) (Pl. 4-24)

Dal-meun-bok-ju-meo-ni-tteok-so-ba-gu-mi(닮은복주머니떡소바구미)

Agonotropis terminassianae Egorov, 1987: 107.

TL: Russia - Amurskoi.

Redescription: Body oblong-oval, robust, about 1.8 times as long as wide (except head), derm dark brown to black and appendages covered with whitish and dark brown pubescence. Elytra with whitish pubescent patches on reddish-brown derm. Head coverd with irregular wrinkles, rostrum constricted at middle. Antennae somewhat thick, antennal club compact. Pronotum transversely impressed just before middle, surrounded with a whitish-yellow pubescent patch. Prothoracic dorsal carina weakly but clearly angulate toward scutellum at middle, deeply sinuate at sides, and posterior corners round. Lateral carina reaching pleural suture in middle of lateral margin. Pronotal declivity with broad, whitish, pubescent band at middle and a small, whitish pubescent dot on each lateral side. Each elytron with a distinct tubercle at base, covered by a blackish pubescence on third interval. Elytra longer than wide with whitish, round, large patch on basal half; blackish longitudinal patch on 3rd interval behind round patch and other part tessellated with whitish pubescence. Femur and basal 2/3 of tibia covered with whitish pubescence and apical 1/3 of tibia and each tarsus with brown pubescence. 1st tarsomere 1.5 times as long as 2nd; 3rd tarsomere bilobed, and 4th tarsomere very small and almost invisible.

MEASUREMENTS: Body length (excluding rostrum). 4.2–5.3 mm.

BIOLOGICAL NOTES: This species was collected on the trunks of lindens windfall amurskoi (Egorov, 1996).

DISTRIBUTION: Korea (New record), Russia (Far East).

KOREA: Central.

SPECIMENS EXAMINED: $5 \stackrel{\circ}{+}$, Namjeon-ri, Inje-gun, GW, 27.v.–21.vi.2011.

REMARKS: This species is newly added to the Korean fauna.

Genus Sphinctotropis Kolbe, 1895

Hoe-tteok-so-ba-gu-mi-sok (회떡소바구미속)

Type species: Sphinctotropis albofasciata Kolbe, 1895.

Synonym: Spathorrhamphus Marshall, 1902: 210 (Type species: Spathorrhamphus corsicus Marshall, 1902).

The external features of *Sphinctotropis* are strongly reminiscent of *Tropideres*, but differs from this genus by the antennal form. It appears more related to the genus *Litocerus* Schoenherr, but differs especially in the wider club. In *Sphinctotropis*, the interocular width between the eyes is 1/3–1/2 the diameter of an eye, but in the case of *Litocerus*, the eyes almost touch, with the interocular space narrowing linearly. Rostrum longer than wide. Surface of rostrum with three longitudinal ridges, in which the mean is greatly convex and will appear in the lateral view as convex and humped.

Eyes almost oval, moderately convex and slightly convergent anteriorly.

Number of species: 6 species (1 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

25. *Sphinctotropis laxa* (Sharp, 1891) (Pls. 4-25, 12-25)

Hoe-tteok-so-ba-gu-mi(회떡소바구미)

Tropideres laxus Sharp, 1891: 304.

TL: Japan - from Yezo to Yuyama.

Original description: Niger, rostro in faciem anteriorem capiteque sub oculos albido vel ochraceo-tomentosis; elytris guttulis paucis parvis ornatis; antennarum clava gracili, laxe articulata. Long, rostro deflexo 8–9 mm.

This species differs from the following three by the more elongate, slender, and less compact antennal club, and also by a distinct difference in the direction of the prebasal carina of the thorax, as well as by the eyes being a little more distant. The three joints of the antennal club are subequal in length, all are slender, each much longer than broad. The thoracic carina is widely separated from the base in the middle, but on each side becomes slightly more approximate to the base, instead of more distant from it as it is in the following species; there is a large quadrate, ochraceous mark in front of the scutellum. The elytra have a very small, pallid mark adjacent to the scutellum, and each, just behind the middle near the suture, has a small but conspicuous white mark. The legs bear rings of pallid color, there being two such rings on each tibia (Sharp, 1891).

MEASUREMENTS: Body length (excluding rostrum). 4.2–8.0 mm.

BIOLOGICAL NOTES: Adults are usually collected from dead branches and trunks of oak trees.

DISTRIBUTION: Korea, China, Japan, Russia (East Siberia, Far East).

KOREA: Central, South.

SPECIMENS EXAMINED: Mt. Shoyosan, GG, 13.v.1935, S. Eguchi; Mt. Shoyosan, GG, 15.v.1935 S. Eguchi; Namhansanseong, GG, 2.vi.1974; Kwangreung, GG, 20.vii.1975; Mt. Chiaksan, GW, 13.vi. 1976; Mt. Bukhansan, GG, 10.vii.1976; Mt. Bukhansan, GG, 11.vii.1976; Aengmubong, GG, 15.vi.1976; Mt. Sokrisan, 9.vi.1977; Mt. Hwaaksan, GG, 2.v.1978; Mokpo, JN, 2.x.1978; Jangheung, GG, 30.v.1982; 2exs., Kwangreung, GG, 10.viii.1983; Gachilbong, GW, 21.vi.1984; Mt. Sobaeksan, GB, 10.v.1985; Mt. Palgong, GB, 26.v.1985; Mt. Yeongchuisan, GN, 30.vii.1986; Suwon, GG, 1.vi.1990; Yeongdong, CB, 12.ix.1991; Suwon, GG, 17.v.1992; Mt. Myeongjisan, GG, 17.v.1992; Mt. Baekunsan, Dapgok, JN, 2.viii.1993; 2exs., Kwangreung, GG, 1.v.1993; Weonasa, GW, 24.vi.1994; Mt. Surisan, GG, 2.vii.1996; 2exs., Piagol, Mt. Jiri, JN, 14.vi.1997; Mt. Baekunsan, Dapgok, 27.vii.1998; Mt. Kwangkyosan, GG, 9.iv.1998; Piagol, JN, 3.vi.1998; 3exs., Mt. Taehwasan, Gwangju, GG, 2.ix.1998; Oksanri, Baekammyeon, Cheoingu, Yonginsi, GG, 22.vii.-29.vii.2006; Mt. Taehwasan, Chugokri, Docheokmyeon, Gwangjusi, GG, 9-24.vi.2007; Anyangdong, Manangu, Anyangsi, GG, 26.vi.-11.vii.2007; Mt. Kwangyosan, Sujigu, Yonginsi, GG, 8.viii.-5.ix.2008; Sangri, Mungyeongeub, Mungyeongsi, GB, 10.viii. 2008; Mt. Yeoninsan, Seunganri, Gapyeongeub, Gapyeonggun, GG, 9.vi.2011; Mt. Jangsan, Guraeri, Sangdongeub, Yeongwolgun, GW, 5.viii.2011.

KOREAN RECORD: Doi, 1938; Cho, 1957; Kwon and Lee, 1986; Senoh, 1987; Hayashi et al., 1994; ESK/KSAE, 1994; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Genus Tropideres Schoenherr, 1823: 1135.

Tteok-so-ba-gu-mi-sok (떡소바구미속)

Type species: Curculio albirostris Herbst, 1784=Curculio albirostris Schaller, 1783.

Synonym: Tropidoderes Gistel, 1856: 375 (Type species: Curculio albirostris Herbst, 1784=Curculio

albirostris Schaller, 1783).

Tropidoderes Gemminger and Harold, 1872: 2733 nec Gistel, 1856.

Rostrum subparallel-sided; prothoracic dorsal carina nearly straight or arcuate anteriorly; each elytron with low elevation at base.

Number of species: 31 species (3 species in Korea). Distribution: Afrotropical, Oriental, Palaearctic.

Key to the species of genus Tropideres

- 1. Antennal club loosely articulated, penultimate antennomere longer than broad, much longer than half of 9^{th} ; 1^{st} tarsomere of foreleg longer than remaining tarsomeres *T. securus*
- Antennal club compact, penumtimate antennomere as broad as or broader than long, shorter than half of 9th; 1st tarsomere shorter than remaining tarsomeres
- 2. Abdominal tergites strongly sclerotized, with metallic blue luster T. cyaneotergum
- Abdominal tergites, except pygidium, weakly sclerotized, without metallic luster. Male with distinct projections on inner margin of extremity of middle tibiae T. naevulus

26. *Tropideres cyaneotergum* Oda, 1979 (Pls. 4-26, 12-26)

Gin-nal-gae-tteok-so-ba-gu-mi (긴날개떡소바구미)

Tropideres cyaneotergum Oda, 1979: 115.

TL: Japan - Matsuyama, Tsushima, Hiroshima; female.

Original description: Body elongate-oval, about 2.1 times as long as wide; ground color black, mandibles tinged with reddish-brown, labrum pale yellow, pretarsal claw reddish-brown; pubescence composed of three types of colored setae, namely white, dark brown, and black, the white sparsely scattered on whole surface and forming transverse maculations on elytra, the dark brown somewhat densely covering upperside, the black fringing the above white maculations on elytra and forming annuloid marks on legs, the white and other dark brown making very fine dapples on most surfaces. Head including rostrum covered with two types of punctures, smaller punctures fine and dense, larger punctures sparse, and making longitudinal wrinkles at apical 1/3; rostrum quite flattened dorsally, depressed ovally at lateral sides of apical 1/3, with indistinct carinae on surface, that is, a short median carina located basally, a slightly inward, arched carina on each side, and a straight carina along lateral margin; ventral side with a median keel. Eyes relatively small and oval, widely separated, inner margins convergent anteriorly. Antennae rather short, not reach-

ing base of pronotum, 1st to 8th segments sparsely covered with white pubescence, club densely covered with recumbent black pubescence, 1st and 2nd articles robust, subequal in length and shape to each other, 3rd longest; 4th slightly shorter than 3rd, 5th shorter than 4th; 6th to 8th conical, subequal in length to one another, 9th conical, subequal in length to 7th and 8th combined; 10th about 0.7 times as long as 9th, 11th triangular. Pronotum cylindrical, gradually narrowing anteriorly, about 0.7 times as long as wide, strongly depressed at center, obliquely depressed from central depression toward anterior corner; dorsal carina nearly straight, feebly sinuate, arcuate at lateral sides, lateral angles rounded; distinct basal transverse carina existing behind dorsal carina, interrupted at middle; apical 1/3 of pronotum finely and densely punctured, basal 2/3 and lateral areas coarsely punctured, surface covered in disorder with white and darkish brown pubescence, area behind dorsal carina with 3 well-defined white spots at middle and lateral sides; carinulae existing behind angles of prothoracic carina. Scutellum transverse-oval, densely furnished with white pubescence. Elytra relatively slender, parallel-sided, broadly rounded at apical area, about 1.5 times as long as wide, conjointly, evenly convex above, with a low elevation near scutellum; humeral callosity weakly projected, distinctly punctate-striate; interstices convex, very finely, densely, and uniformly punctured, 3rd interstices broadest, notably elevated; surface densely covered with white or darkish pubescence, with a large, transverse, white maculations which are located at about apical 2/5 of each elytron, fringed with black pubescence and extending from 3rd interstices to 7th; scattered, illdefined white spots on alternate interstices. Abdominal tergites well-sclerotized, with metallic dark blue luster. Pygidium rather large, about 0.75 times as long as wide, rugosely punctured, apical half furnished with small granules which are irregular in density, basal half covered with whitish pubescence. Ventral surface of body sparsely covered with white pubescence, intermingled with dark brown setae which are increasing in density at lateral sides. Prosternum with a straight and definite keel before procoxa, the keel interrupted at middle, ante-lateral area of pronotum coarsely punctured. Mesosternal process broad, feebly sinuate at apex. Metasternum minutely punctured. Abdominal sternites rugose, relatively long. Legs somewhat slender, covered with white and dark brown pubescence; tibiae clothed with black pubescence at base and apex; tarsi slender, 1st tarsomere apparently shorter than remaining, clothed with black pubescence except basal half; 2nd to 5th entirely clothed with black pubescence. Pretarsal claws reddish-brown, tinged with black at basal half, dentate at base (Oda, 1979).

MEASUREMENTS: Body length (excluding rostrum). 4.4–5.8 mm.

DISTRIBUTION: Korea, Japan, Russia (Far East).

KOREA: Central, South.

Specimens examined: Sungkyunkwan Univ., Seoul, 7.iii.1937; Sungkyunkwan Univ., Seoul, 26.iii. 1938; 1♂, Cheongryangri, Seoul, xii.1982; 2♀, Kwangreung, GG, 15.v.1993; 1♂4♀, Kwangreung, GG, 18.v.1993; Mt. Baekunsan, JN, 29.vii.1997; Seokpori, Seokpomyeon, Bonghwagun, GB, 3.vii.2011; Cheongrori, Geumseongmyeon, Uiseonggun, GB, 3.vii.2012.

KOREAN RECORD: Senoh, 1987; Hayashi et al., 1994; ESK/KSAE, 1994; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

27. *Tropideres naevulus* Faust, 1887 (Pls. 5-27, 12-27)

Nal-gae-tteok-so-ba-gu-mi(날개떡소바구미)

Tropideres naevulus Faust, 1887: 162.

Tropideres germanus Sharp, 1891: 304 (TL: Japan - Moon Temple, Kobe, Buno).

Tropideres vilis Sharp, 1891: 305 (TL: Japan - Yezo, Hitoyoshi, Kashiwagi).

Tropideres yezoensis Oda, 1979: 121 (TL: Japan - Hokkaido).

TL: Russia - Chabarofka (Khabarovsk).

Original description: Des verlängerten, an den Seiten ausgebuchteten Rüssels und der auf der Stirne genäherten Augen wegen ist die neue Art neben dorsalis und albirostris zu stellen, von beiden aber durch nicht weifs behaarten Rüssel und andere Zeichnung zu trenen.

Scheitel wie der Thorax mit gröberen ungleichmäfsig vertheilten Punkten, letzterer wie bei albirostris geformt und mit ebenso gerichtetem Basalkiel, dagegen die beiden Eindrücke auf dem Rücken weniger tief und scharf. Augenentfernung gleich der Schienenbreite an der Basis. Rüssel runzlig punktirt mit feinem kurzen Kiel an der Basis und jederseits am Seitenrande mit einem flachen Längseindruck, dessen Innenkante sich zuweilen als flacher Kiel abhebt. Von den sammtschwarzen, etwas erhabenen deckenspatien 2 und 4 ist ersteres vor der Mitte breit, hinter der Mitte kurz zweimal unterbrochen, letzteres erst von der Mitte ab erhabener und hinter derselben nur einmal unterbrochen; die nicht scharfen Unterbrechungen vor der Mitte sind wie die übrigen Spatien dünn schwarzgrau, hinter der Mitte dicht gelblich weifs behaart. Das senkrechte Pygidium kräftig punktirt. Vorder-und Hinterbrust sowie die Episternen der letzteren mit eben so grofsen, nicht dichten Punkten besetzt als der Thorax. (in German; Faust, 1887).

Additional description: Body elongate-oval, about 2.0 times as long as wide, pronotum strongly narrowed anteriorly; ground color black, ventral surface and appendages usually paler; pretarsal claws, palpi, and antennae reddish-brown, pubescence recumbent, composed of bicolored hairs, namely white and blackish-brown, the white covering whole surface, especially conspicuous on ventral surface, rostrum and gena, and forming maculations on dorsal surface; blackish-brown densely covering antennal club and forming indistinct maculations on elytra; surface of body minutely and uniformly punctured, except head, including rostrum, pronotum (dorsal surface and lateral surface), pygidium with large and coarse punctures. Head intermixed with brown pubescence on vertex, randomly punctured; ante-lateral area of rostrum longitudinally wrinkled, rostrum subparallel-sided, widest near apex, about 1.4 times as long as wide, triangular and depressed at apical 1/3, with a vague median carina extending from interocular area to middle; each side with inward arched carina, and with straight carina along lateral margin; a short smooth line existing on gena. Eyes oval, large, inner margins strongly convergent anteriorly. Antennae relatively short, reaching base of pronotum; 1st to 8th antennomeres sparsely clothed with white pubescence; 1st robust, slightly longer than 2nd, 2nd thickest, 4th longer than 3rd, 5th shorter than 3rd; 6th to 8th nearly equal in length and shape to one another; 8th nearly conical, 9th triangular, about 2 times as long as 10th; 10th quadrangular, 11th obovate. Pronotum transverse, uneven, about 0.63 times as long as wide, strongly narrowed anteriorly, and narrowing slightly behind dorsal carina, prothoracic dorsal carina nearly straight, and slightly sinuate on each side, lateral angles rounded; derm shining, depressed at antemedial area; disc sparsely covered with pubescence, which is condensed on each side; basal area behind dorsal carina with 3 well-defined white spots at middle and lateral sides. Scutellum transverse-oval, densely clothed with snow-white pubescence. Elytra subparallel-sided, about 1.53 times as long as wide, humeral callosity weakly prominent, each elytron with an elevation near scutellum, distinctly punctate-striate; interstices finely punctured, odd interstices broader than even ones; 3rd interstices weakly elevated, surface thinly covered with white pubescence, and with dark brown pubescence somewhat predominant at medio-lateral area; alternate interstices and at top of basal elevation; black and white maculations forming indistinct tessellate pattern at apical half. Pygidium nearly trapezoidal, 0.75 times as long as wide, feebly convex, concave along apical margin; disc wrinkled, sparsely covered with white pubescence on basal and lateral areas. Prosternum with a low elevation before each precoxa; mesosternum coarsely punctured. Abdominal segments mediolongitudinally and broadly concave throughout, finely and densely punctured, closely furnished with white pubescence. Legs entirely covered with white pubescence; femur robust, with a black ring at middle; tibia comparatively slender, with 3 black rings at base, middle, and apex; tarsus robust, 1st tarsomere shorter than 2nd to 5th combined, with black rings at base and apex. Pretarsal claws reddish-brown, with a tooth at base (Oda, 1979; on *T. yezoensis* Oda=Syn. of *T. naevulus*).

MEASUREMENTS: Body length (excluding rostrum). 3.3–5.8 mm.

BIOLOGICAL NOTES: Adults are usually collected from dead branches and trunks of broadleaf trees.

DISTRIBUTION: Korea, China, Japan, Nei Mongolia, Russia (East Siberia, Far East).

KOREA: Central, South.

SPECIMENS EXAMINED: Chŏnnam, viii.1929; Songchŏnri, 30.v.1943; Haeinsa, Hapcheon, GN, 10.vi. 1966; Mt. Gamaksan, GG, 14.vi.1971; Daegwanryeong, GW, 13.vi.1973; Is. Soheuksan, JN, 19.vi.1973; Mt. Seolak, GW, 9.viii.1976; Mt. Hwanghaksan, GB, 4.vi.1978; Is. Ulreung, GB, 28.vi.1981; Kwangreung, GG, 21.v.1982; Is. Ulreung, GB, 22.vi.1982; Mt. Kwangdeoksan, CN, 10.vii.1982; Cheongryangri, GG, 6.v.1983; Mt. Yeongchuisan, GN, 2.vi.1983; Wabumyeon, GG, 22.v.1983; Mt. Palgongsan, GB, 10.v.1984; Cheongryangri, Seoul, 17.v.1984; Cheongryangri, Seoul, 31.v.1984; 5exs., Mt. Palgongsan, GB, 7.x.1984; Suwon, GG, 2.vi.1985; Mt. Palgongsan, GB, 15.v.1987; Mt. Jogyesan, JN, 2exs., Gandongmyeon, Hwacheonmyeon, GW, 25.v.1993; 24.v.1988; Mt. Cheonggyesan, Seoul, 12.v. 1990; Wolgyedong, Noweon-gu, Seoul, 19.v.1991; Kwangreung, GG, 18.vi.1993; Samsanmyeon, Goseonggun, GN, 5.ix.1993; 2exs., Suwon, GG, 16.v.1993; Mt. Jukyeobsan, GG, 21.v.1994; Namseokkyo, Is. Ulreung, GB, 2.v.1995; Mt. Myeongjisan, Gapyeong, GG, 29.iv.1997; Balan, GG, 15.v.1998; Chungnam Univ. Daejeon, CN, 16.v.1998; Suncheon, JN, 6.vi.1998; Mt. Bukhansan, GG, 14.v.1998; Sangju, GB, 8.vi.1998; 2exs., Mt. Chilbosan, GG, 10.iv.1998; Mt. Baekunsan, Dapgok, JN, 28.vii.1998; Eorimok, JJ, 26.viii.1998; Mt. Gujeolsan, Chunchŏn, GW, 28.v.1998; Jumunri, Hadongmyeon, Yeongwolgun, GW, 31.v.2011; 2exs., Yeonhari, Yeongwoleub, Yeongwolgun, GW, 6.viii.2011.

KOREAN RECORD: Senoh, 1979; Senoh, 1981; Kwon and Lee, 1986; Hayashi et al., 1994; ESK/KSAE, 1994; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Remarks: This species is considerably variable in scaly markings and coloration as already pointed out by Sharp (1891) and Senoh (1979). They show a tendency to be whitish on the ventral side and rostrum from central Honshu northwards to Hokkaido. Some specimens from Tsushima have yellowish to greyish patches instead of grey or white on the elytra. Senoh also noted the local variation of scaly coloration. The punctation and shape of the pronotum are also considerably variable. *T. vilis* is nothing but a smaller form with less variegated surface; *T. yezoensis* is a northern form of *T. naevulus*, and many transitional forms are observed in the materials from northern Honshu and Hokkaido (Morimoto, 1980).

28. *Tropideres securus* Boheman, 1839 (Pls. 5-28, 12-28)

Bul-geun-mu-nui-tteok-so-ba-gu-mi (붉은무늬떡소바구미)

Tropideres securus Boheman, 1839, 207.

Litocerus ana Jordan, 1903: 424.

Litocerus rufescens Roelofs, 1879: lv (=1880: 28).

TL: India - Calcutta.

Description: Body elongate-oval, about 2.0 times as long as wide, black; antennomeresexcept club, several parts of elytral derm, tibial band, and tarsi reddish-brown. Rostrum and ventral side of body covered with whitish-yellow pubescence. Rostrum longer than wide and slightly broadening ateriorly. Interocular width 1/6 times as wide as rostrum at narrowest point. Antennae with thick scape and pedicel, 3rd antennomere 2 times as long as pedicel; each antennomere of club longer than wide. Pronotum wider than long, dorsal carina gently arched anteriorly, lateral carina reaching middle of lateral margin. Basal angle rapidly arched and basal carinula directed posteriorly. Pronotal declivity somewhat horizontal with dorsum of pronotum. Whitish, quadrate, pubescent patch at middle before scutellum. Scutellum small and covered with white pubescence. Elytra 1.2 times longer than wide, reddish derm spots located near scutellum and behind middle. The reddish derm spot behind middle extending to 5th interval. Femur stout and clavate, tibiae with two whitish bands, 1st tarsomere 2 times as long as 2nd, 3rd tarsomere narrowly but clearly bilobed. Pygidium as long as wide in male but 1.2 times as wide as long in female.

MEASUREMENTS: Body length (excluding rostrum). 3.2–4.5 mm.

BIOLOGICAL NOTES: Adults and larvae were collected from dead trunks of broadleaf trees.

DISTRIBUTION: Korea, China, Japan, Russia (Far East), Taiwan.

KOREA: Central.

SPECIMENS EXAMINED: $1 \ 7$, Goesan, CB, 23.v.1993; $1 \ 7$, Paju, GG, 1.v.1997; $1 \ 7$, Mt. Gujeolsan, GW, 28.v.1998; 5exs., Banpomyeon, Gongjusi, CN, 2.viii.2009.

KOREAN RECORD: Park and Woo, 1997; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Tribe Zygaenodini Lacordaire, 1865

So-ba-gu-mi-jok (소바구미족)

Key to the genera and species of tribe Zygaenodini

1.	Prothoracic carina with arched angle
_	Prothoracic carina with edged angle
2.	Eyes placed on stalks or somewhat expanded edge of frons, adults with sexual dimorphism in
	head shape and antennae Exechesops
_	Eyes placed normally, adults with almostly same external features in both sexes Gibber
3.	Basal angles of pronotum almost rectangular with angle of carina. Carinula directed posteriorly
	Rhaphitropis
_	Basal angles of pronotum close to angle of carina. Carinula directed inside of body

4.	Vertex and pronotum regularly covered with minute granules. Scutellum clearly visible	•••••
		Uncifer
_	Vertex and pronotum irregularly reticulate. Scutellum small, almost invisible Un	ıciferina

Genus Exechesops Schoenherr, 1847: 4.

So-ba-gu-mi-sok (소바구미속)

Type species: Exechesops quadrituberculatus Schoenherr, 1847.

Synonym: Zygaenodes Pascoe, 1859: 328 (Type species: Zygaenodes wollastoni Pascoe, 1859).

Number of species: 54 species (2 species in Korea). Distribution: Afrotropical, Oriental, Palaearctic.

Key to the species of genus *Exechesops*

- 1. Eyes only placed on upper edge of frons in male; 3rd antennomeres clavate and flattened in male. Basal carinula unclear and not connected to angle of carina in both sexes *E. foliatus*
- Eyes placed on long stalk in male; 3rd antennomeres not clavate and much longer than other segments. Basal carinula clear and connected to angle of carina in both sexes E. leucopis

29. Exechesops foliatus Frieser, 1995 (Pls. 5-29, 12-29)

Eo-ri-so-ba-gu-mi(어리소바구미)

Exechesops foliatus Frieser, 1995: 28. Exechesops elenae Egorov, 1996: 194.

TL: Russia - Siberia, Primorye, Korea - Phyongan Prov. (Mt. Myohyang-san).

Description: Body similar to *E. becvari*, derm dark brown to blackish-brown but lighter grey to pale yellow in some specimens; reduced dark spots on elytral grid, blurred, hardly contrasting. Antennae and legs reddish but apical area of each segment dark brown. Eyes round, slightly concave at lower edge, located on upperside of head, projected but not on stalk in male and not projected in female. Frons flat in lateral view in both sexes. Rostrum wide and parallel-sided to upperside of scrobe and then rapidly narrowing anteriorly. Antennae of male much longer than antennae of female; 3rd antennomere clavate and flattened in male, long in both sexes. Club slender, loosely articulated, much longer than wide in male and more clavate in female. Pronotum somewhat round, wider than long, about 65:45, widest at end of dorsal carina. Dorsal carina ante-basal, gently concave toward scutellum, somewhat horizontal at each side. Lateral carina short, connected with dorsal carina and reaching pleural suture. Basal angle round. Basal carinula short, horizontal and apart from dorsal carina. Disk tessellate with whitish and yellow pubescent patches. Elytra subquadrate, longer than wide, about 80:65. Pygidium short, tongue-shaped, in both sexes as long as wide. First tarsomere two times as long as 2nd, 2nd as long as wide with long setae at each side, 3rd clearly bilobed.

MEASUREMENTS: Body length (excluding rostrum). 2.2–2.9 mm.

BIOLOGICAL NOTES: Adults were collected from *Acer ginnala* and larvae grow in *Acer* seeds. Male adults protect females from other males on the seed during female oviposition in the seeds.

DISTRIBUTION: Korea, China, Russia (Far East).

KOREA: North, Central, South.

Specimens examined: Mt. Naejangsan, 10.v.1975; 1♂, Mt. Wangbangsan, 12.vi.1977; 4exs., Mt. Juwangsan, GB, 19.vii.1981; Mt. Seolaksan, GW, 25.viii.1982; Mt. Seolaksan, GW, 26.viii.1982; Mt. Seolaksan, GW, 27.vii.1982; 5exs., Mt. Juwangsan, GB, 26.vii.1984; 7exs., Mt. Juwangsan, GB, 27.vii. 1984; 7ex., Mt. Juwangsan, GB, 28.vii.1984; 5exs., Mt. Cheonggok, GB, 7.viii.1991; Mt. Cheonmasan, GG, 31.vii.1991; Mt. Deokyusan, JB, 4.vii.1993; 3exs., Mt. Surisan, GG, 21.viii.1996; Bangdongri, Girinmyeon, Injegun, GW, 1-2.viii.2007; Guksa-ri, Oksanmyeon, Cheongwongun, CB, 21.vi.2008; 3exs., Wonnamro, Namjeonri, Injegun, GW, 27.v.-21.vi.2011; 2exs., Seori, Midomyeon, Yonginsi, GG, 1.vii.2011; Yeonhari, Yeongwoleub, Yeongwolgun, GW, 6.viii.2011.

KOREAN RECORD: Frieser, 1995; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

30. Exechesops leucopis (Jordan, 1928) (Pls. 5-30, 12-30)

So-ba-gu-mi (소바구미)

Zygaenodes leucopis Jordan, 1928: 91.

TL: Vietnam - Tonkin.

Original description. Dark brown, rufescent in places, upperside pubescent, ochraceous buff, mixed with grey and dotted with black. Rostrum and frons white; the former one-half broader at base below eye than at apex, and practically as long as apex is broad (base 30, apex 20, length 21), center impressed below middle, median sinus of apical margin shallow, projection at antennal groove obtuse, short. Eye not stalked in frontal aspect, but placed on an elevation posteriorly, outline straightened on side towards frons. Occiput nearly horizontal. Frons with rostrum vertical, but angle between frons and occiput rounded, without tubercle. Antenna rufous at base, antennomere 3 as long as 4 and 5 together, 8 a little shorter than 7, but broader and more setose, club slightly broader than in Z. vigens Jordan (1925), proportions of club 9:6:9, breadth 5. Pronotum slightly uneven, transverse depression behind apical margin; whitish median stripe interrupted by a triangular, black, central spot; some indefinite dark brown spots on side of disc; a brown spot behind carina at each side of whitsh median line; carina broadly and moderately concave in middle, more strongly convex towards sides, placed medially at three-tenths of the length of pronotum. Scutellum white. Elytra slightly longer than broad (10:9), basal area and interspaces 3 and 5 more ochraceous buff than the rest, suture and alternate interspaces dotted with black, the spots particularly conspicuous on interspaces 3 and 5; subbasal swelling not prominent, forming a very low ridge which bears a black spot in front. Pygidium one-fifth longer than broad, gradually angustate-rotundate. Ventral side grey, slightly mottled with brown on sides; tips of tibiae brown (Jordan, 1928).

MEASUREMENTS: Body length (excluding rostrum). 3.7–6.2 mm.

BIOLOGICAL NOTES: The Styrax weevil, *E. leucopis*, ranges widely from Indochina to East Asia, and is known to be associated with *Styrax japonica* Siebold and Zuccarini and *S. obassia* Siebold and Zuccarini. Larvae grow and pupate individually in a *Styrax* seed (Yoshitake and Kawashima, 2004).

DISTRIBUTION: Korea, China, Japan, Russia (Far East), Oriental.

KOREA: North, Central, South, Jeju Is.

Specimens examined: Nanzan-S, KEIJO-C, 5.vi.1934, S. Eguchi; (Hyojajung) 24.v.1937; Saishuto, 21.v.1919, C. Inoue; 7exs., Suwon, GG, 21.vi.1963; Seoul, GG, 7.iii.1937; Mt. Surak, GG, 11.vi.1983, M.S. Joo; Palyari, Namyangju, 3.v.1986; Anyang, GG, 28.vi.1989, S.J. Song; Seoul, GG, 27.v.1990, M.Y. Jung; Cheongryangridong, Dongdaemungu, Seoul, GG, 15.viii.2005; Sanghyodong, Seoguiposi, JJ, 24.vii.-4.viii.2006; Namhansanseong, Gwangjusi, GG, 21.vi.2007; Yeosusi, JN, 2.viii.2007.

KOREAN RECORD: Doi, 1938; Miwa and Chujo, 1939; Cho, 1957; Kwon and Lee, 1986; Senoh, 1987; Hayashi et al., 1994; ESK/KSAE, 1994; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Genus Gibber Jordan, 1895

Hok-so-ba-gu-mi-sok (혹소바구미속)

Type species: *Gibber tuberculatus* Jordan, 1895.

This genus is similar to *Dissoleucas* Jordan and *Directarius* Jordan in the shape of the prothorax, but easily separable from them by the oblong-oval eyes, of which the lower edges are much closer to each other than the upper. Prothorax strongly narrowed behind dorsal carina. Elytra subquadrate and tuberculate.

Number of species: 12 species (1 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

Remarks: This genus was transferred to the tribe Zygaenodini by Tryzna and Valentine (2011).

31. Gibber nodulosus (Sharp, 1891) (Pls. 5-31, 12-31)

Ae-hok-so-ba-gu-mi (애혹소바구미)

Tropideres nodulosus Sharp, 1891: 308.

TL: Japan.

Original description: *T. niveirostris proxime affinis; niger, pervariegatus, elytris nodulosis; rostro nivescente*. Although very closely allied to *T. niveirostris,* this is, I have no doubt, a distinct speices; the surface is more variegate in colour, and the three nodular elevations placed in a line on each elytra are very large; the thoracic carina is at each side less deflexed backwards. The thorax is separated from the elytra by an angular incision on each side, as in *T. niveirostris* (Sharp, 1891).

Additional description. Body brown to dark brown, tessellate with whitish, golden, and blackish pubescence. Antennae and legs pale brown and tibiae with two whitish bands. Rostrum wider than long, shallowly deppressed at middle and densely covered with whitish pubescence. Upperside of scrobe protude and carinate. Scrobe separated from eye by about diameter of it. Interocular width 1/2 times as wide as rostrum. Dorsal carina antebasal and shallowly waved, basal angle

arched, lateral carina short. Basal carinula weak but clear, directed to humeral angle of elytra and curved to inner direction. Pronotal declivity with whitish pubescent patch at middle before scutellum. Scutellum round and covered with whitish pubescence. Elytra with three pairs of projections, two pairs located at 3rd intervals on basal area and in middle, and one pair located at 5th elytral declivity.

MEASUREMENTS: Body length (excluding rostrum). 2.8-4.0 mm.

BIOLOGICAL NOTES: This species is usually gathered from mushrooms on the dead trunks of broadleaf trees.

DISTRIBUTION: Korea, Japan, Russia (Far East).

KOREA: North, Central, South.

Specimens examined: $1 \stackrel{\circ}{+}$, Mt. Palgongsan, GB, 23.v.1981; Mt. Taeeunsan, GN, 28.v.1987; Mt. Hakilsan, GB, 13.viii.1997; $1 \stackrel{\circ}{+}$, Mt. Deokyusan, JB, 28.v.1991; $1 \stackrel{\circ}{+}$, Mt. Palgongsan, GB, 25.v.1986; $1 \stackrel{\nearrow}{-}$, Mt. Juwangsan, GB, 14.vi.1991; $1 \stackrel{\circ}{+}$, Cheonan, CN, 11.v.1991; Mt. Jirisan, JN, 4.vi.1977; Suwon, GG, 20. iv.1988; Bonghwagun, GB, 28.v.1993; $1 \stackrel{\circ}{+}$, Suwon, GG, 12.v.12; $1 \stackrel{\circ}{+}$, Gwangjugun, GG, 1.v.1994; $1 \stackrel{\circ}{+}$, Gwaneumsa, JJ, 23.v.1995; $1 \stackrel{\nearrow}{-}$, Mt. Gwanggyosan, GG, 11.ix.1995; $2 \stackrel{\circ}{+}$, Daejeon, CN, 15.v.1998; $1 \stackrel{\nearrow}{-}$, Mt. Baekunsan, JN, 28.vii.1998; $1 \stackrel{\circ}{+}$, Mt. Odaesan, GW, 2.vii.1998; $1 \stackrel{\nearrow}{-}$, Suwon, GG, 12.viii.1998; Surisan, Gunposi, GG, 4.v.2006; Anyangdong, Manangu, Anyangsi, GG, 9–24.vi.2007; Janghakri, Dongmyeon, Chuncheonsi, GW, 17.v.–14.vi.2011.

KOREAN RECORD: Kwon and Lee, 1986; Senoh, 1987; Hayashi et al., 1994; ESK/KSAE, 1994; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Genus Rhaphitropis Reitter, 1916: 5.

Geom-jeong-so-ba-gu-mi-sok(검정소바구미속)

Type species: *Anthribus marchicus* Herbst, 1797.

The species now assigned to this genus are somewhat heterogeneous and can be divided into three groups as follows:

The *marchicus*-group: Elytra regularly punctate-striate, basal margin arched anteriorly and covering basal part of pronotum; antennae not very slender; dorsal carina of pronotum parallel to base of elytra; mesosternal process simple.

The *guttifera*-group: Elytra regularly punctate-striate, basal margin truncate; antennae slender; dorsal carina of pronotum not parallel to base of elytra; mesosternal process simple.

The *midori*-group: Elytra irregularly punctate-striate on dorsal surface; mesosternal process deeply depressed at basal half and apical area; latero-apical corners bent posteriorly and sharply prolonged into long processes.

The *marchicus*-group is similar to *Uncifer* Jordan, and contains *discus* Jordan, *tamilis* Jordan, *truncatoides* sp. nov., *niger* sp. nov., and *imperfectus* Sharp. The *midori*-group is conspicuous enough to deserve an independent genus, but material is scanty at present (Morimoto, 1981).

Number of species: 74 species (2 species in Korea). Distribution: Afrotropical, Oriental, Palaearctic.

Key to the species of genus *Exechesops*

- Antennal clubs with ninth antennomere much longer than eighth, tenth antennomere a little longer or shorter than wide
 R. nigromaculata

32. Rhaphitropis guttifer (Sharp, 1891) (Pl. 6-32)

Eol-ruk-geom-jeong-so-ba-gu-mi(얼룩검정소바구미)

Tropideres guttifer Sharp, 1891: 314.

Tropideres concolor Sharp, 1891: 314 (Type Locality: Japan - Yokohama).

TL: Japan - Nagasaki.

Original description: *Niger, supra maculis parvis pallidis ornatus, subtus subtiliter albido-vestitus; antennis tenuibus, clava perelongata; thoracis carina a basi remota, bicurvata*. Antennae black, slender, elongate; club very long, its first joint longer than the seventh and eighth together, tenth and eleventh joints subequal, each distinctly shorter than the ninth. Rostrum short and broad, transversely impressed across the front, dark in colour, with some delicate, pallid pubescence near the eyes, most distinct at the vertex; eyes encroaching on the front, but separated by half the width of the rostrum. Thorax gently narrowed in front, marked with some widely separated small spots of pallid pubescence; the carina remote from the base, forming two curves, with their convexities forward, which meet in the middle in an excessively obtuse angle; the hind angles prominent, so that an incision exists between the bases of the thorax and elytra on each side. Elytra black, with numerous small flecks of pallid pubescence. Under surface uniformly covered with delicate pallid pubescence. Middle coxae moderately widely separated (Sharp, 1891).

MEASUREMENTS: Body length (excluding rostrum). 2.8 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, Japan, Russia (Far East), Taiwan.

Korea: South.

SPECIMENS EXAMINED: $1 \, \mathcal{I}$, Mt. Tonggosan, 25.viii.1991. **KOREAN RECORD:** Hong et al., 2001; Paek et al., 2010.

33. Rhaphitropis nigromaculata Morimoto, 1981

Gin-geom-jeong-so-ba-gu-mi(긴검정소바구미)

Rhaphitropis nigromaculata Morimoto, 1981.

TL: Japan - Amami-Oshima, Ishigaki and Iriomote Isls.

Original description: **Male**. Brownish-black to black, anterior margin of rostrum and femora dark reddish-brown, tibiae and antennae yellowish-brown; derm clothed with greyish and dark brown pubescence, the latter forming following patches as in Fig. 6, K: the basal patches on elytra often

obsolete on fourth intervals, median lateral patches often reduced in size to form three small spots, or combined with sutural patch and forming conjoint band. Head densely punctate, vertex bare, forehead and ocular margins with greyish pubescence; forehead between eyes 3/7 times as wide as rostrum; the latter transverse (3:5), similarly pubescent as on forehead on basal half and sparser thence anteriorly, transversely flattened on apical third. Antennae reaching the middle of elytra, with proportions in length from base as 10:12:12:11:10:9.5:10:6:17:12:14, width of tenth 10. Prothorax transverse (5:6), the sides evenly rounded and narrowing anteriorly from the widest point, transverse carina bisinuate, straightly convergent internally and shortly rounded in the middle, narrowly rounded at sides, lateral carinae very short, carinulae present, complete, disk densely punctulate or finely rugose. Scutellum small, round. Elytra cylindrical, parallel-sided, basal margin almost straight, finely marginate, subbasal and subapical swellings obsolete, regularly punctate-striate, intervals flat and much wider than striae. Pygidium as long as wide, straightly narrowing apically to the apical third and widely rounded at apex, clothed with greyish pubescence. Ventral side clothed with greyish pubescence, a little denser at side margins of thorax, mesosternal process simply truncate between middle coxae. Venter with a distinct median sulcus, inside of the sulcus bare and coriaceous, each ventrite slightly contracted. Legs with femora clavate, tibiae straight, simple; tarsi slender, first tarsomere as long as the remaining combined. Female. Antennae with first antennomere of club a little shorter, with proportions in length from seventh as 10:7:15:12:13. Forehead between eyes about half as wide as rostrum. Venter not sulcate, fifth ventrite much wider than fourth in the middle, with arched apical margin (Morimoto, 1981).

MEASUREMENTS: Body length (excluding rostrum). 2.2 mm.

BIOLOGICAL NOTES: Unknown. **DISTRIBUTION:** Korea, Japan.

Korea: Central.

SPECIMENS EXAMINED: 1♂, Mt. Seolaksan, GW, 9.viii.1976.

KOREAN RECORD: Yoon et al., 1991; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Genus Uncifer Jordan, 1904: 88.

Ae-gi-so-ba-gu-mi-sok (애기소바구미속)

Type species: *Uncifer sticticus* Jordan, 1904.

Number of species: 59 species (4 species in Korea). Distribution: Afrotropical, Oriental, Palaearctic.

Key to the species of genus *Uncifer*

1.	Dorsal carina of pronotum not angulate in the middle
_	Dorsal carina of pronotum angulate in the middle
2.	Elytra with several pubescent patches, dorsal carina angulate before angle of carina on each side
	U. angulatus
_	Elytra only with post-scutellar pubescent patch, dorsal carina not angulate before angle of carina
	U. difficilis

- Frons between eyes 1/3 times as wide as rostrum in male, dorsal carina strongly angulate before angle of carina
 U. triangulus

34. Uncifer angulatus Park and Morimoto, 1999 (Pls. 6-34, 13-34)

Se-jul-ae-gi-so-ba-gu-mi(세줄애기소바구미)

Uncifer angulatus Park and Morimoto, 1999.

TL: Korea - Danyang; Mt. Sobaek, Yeongju; Mt. Myeongseong.

Original description: Male. Body blackish-brown except first to fifth antennomeres, tibiae and tarsi yellowish-brown; with whitish-yellow and dark brownish pubescence; the whitish-yellow pubescence sparse on rostrum and head, each side and middle of pronotum and scutellum covered with whitish-yellow pubescence sparse on rostrum and head, each side and middle of pronotum and scutellum covered with whitish-yellow pubescence; elytra with postscutellary patch and anterior marginal patches on the elytra; lateral part of prosternum, middle of metasternum, posterior part of metepisternum, and each side of ventrites covered with comewhat longer whitish-yellow pubescence than other ventral areas. Head and rostrum oriaceous, with dense punctures; Eyes not oval, maximum diameter 4/4 times as long as the minimum one, almost straight at lower margin; Rostrum two times as wide as long, 3.5 times as wide as interocular width. Antennae with proportions in length from base as 16:10:16:17:16:14:13:10:12:8:13, width of tenth 8 (length of 11th segment 1 mm). Dorsal carina weakly and roundly angulate at the middle and more definitely angulate in front of fifth elytral intervals, and roundly conjoined with very short lateral carina. Elytra coriaceous, striae somewhat irregular, with large punctures on basal half, which become weaker and smaller towards apex on declivity, intervals of strioles on declivity much narrower than those of basal half. Pygidium as long as wide, straightly narrowing posteriorly, then roundly narrowing at apex; denticle unclear. Mesosternal process normally truncated between middle coxae. Metasternum depressed roundly; median suture forming a short, longitudinal groove in the middle on posterior halves. Legs ordinary; tarsi with first segment as long as the remaining combined. Genitalia compact; the apex of tegmen strongly bisinuated; aedeagus somewhat peaked in comparison with other species of this genus. Female. The whitish-yellow pubescence forming patches as follows: pronotum with narrow median and broad lateral stripes, scutellum with stout pubescence, elytra with postscutellar patch, which is prolonged latero-posteriorly and contiguous with median stripe on third interval; basal patch between scutellum and shoulder produced posteriorly on fifth interval, often with indefinite small patches at side behind shoulder and middle, and transverse apical patch. Ventral side clothed with longer greyish pubescence, becoming denser on thoracic sterna and forecoxae, more dense on metepisterna, finer and brownish on venter. Tibiae and tarsi with fine concolorous, greyish-brown pubescence. Rostrum about three times as wide as interocular width. Proportions of lengths of antennal segments almost same with that of male. Pygidium with scattered denticles; denticles at the apical one third clear (Park and Morimoto, 1999).

MEASUREMENTS: Body length (excluding rostrum). 1.8–2.3 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea. Korea: Central.

Specimens examined: 1♂10♀, Danyang, CB, 18.v.1997; 2exs., Mt. Myeongseongsan, GW, 16.vi. 1999; Mt. Chiaksan, Geumdaeri, Pabumyeon, Wonjusi, GW, 14.vi.2005; Chundangri, Cheongilmyeon, Hoengseonggun, GW, 7.vi.2009; Mt. Naejangsan, Yaksuri, Bukhamyeon, Jangseonggun, JN, 3.vii.2009; Yeonhari, Yeongwoleub, Yeongwolgun, GW, 6.viii.2011.

KOREAN RECORD: Park and Morimoto, 1999; Park et al., 2001; Hong et al., 2001; Paek et al., 2010. **REMARKS**: Length of 11th segment in original description is not 1mm, but 0.1 mm.

35. *Uncifer difficilis* (Sharp, 1891) (Pls. 6-35, 13-35)

Min-mu-nui-ae-gi-so-ba-gu-mi (민무늬애기소바구미)

Tropideres difficilis Sharp, 1891: 317.

TL: Japan - Kashiwagi; Fukushima.

Original description: Niger, tibiis anterioribus and intermediis piceis, antennarum clava sat elongate; prothoracis carina bicurvata, ad basin valde approximata. Long. $2^3/4$ mm.

This species resembles *T. brucoides* and *T. imperfectus*. It is distinguished from the first by its smaller size, narrower form, and the shorter antennae, the eighth joint of which is markedly smaller; at first sight it more resembles *T. imperfectus*, but is radically distinct from it by the position of the eyes, by the nature of the antennal club, and by the thoracic carina being very near to the base, so that in some positions it almost touches the elytra. The three joints of the club are of subequal length, the tenth about as long as broad. The rostrum is very short, very finely sculptured, the eyes separated by the greater part of its width. The thoracic carina closely follows, in two curves, the outlines of the base of the elytra, and its angles project backwards rather than outwards. The striation of the elytra is coarse and even at the base (Sharp, 1891).

MEASUREMENTS: Body length (excluding rostrum). 2.0–2.4 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, Japan, Russia (East Siberia, Far East).

KOREA: South.

Specimens examined: $1 \stackrel{\circ}{+}$, Mt. Palgongsan, GB, 18.vi.1985; $1 \stackrel{\circ}{-}$, Mt. Chusan, JN, 23.vi.1995; Cheongyangri2dong, Dongdaemungu, Seoul, GG, 18–25.2005; $1 \stackrel{\circ}{+}$, Gabcheonri, Hoengseonggun, GW, 26. vi.2009; Mt. Yongmunsan, Yongmunmyeon, Yangpyeonggun, GG, 16–30.vii.2009.

KOREAN RECORD: Park et al., 2001; Hong et al., 2001; Paek et al., 2010. REMARKS: Elytra have a whitish pubescent patch only behind scutellum.

36. *Uncifer triangulus* Park, Hong, Woo and Kwon, 2001 (Pls. 6-36, 13-36)

Eol-lug-ae-gi-so-ba-gu-mi(얼룩애기소바구미)

Uncifer triangulus Park, Hong, Woo and Kwon, 2001: 193. *Rhaphitropis truncatoides*: Park and Woo, 1997 (nec Morimoto, 1981).

TL: Korea - Mt. Yeogi, Suwon; Mt. Whangak; Mt. Biseul; Kimcheon; Geochang; Koseong; Mt. Sudo; Mt. Yeohang, Haman.

Original description. Male. Body blackish-brown, tibiae, tarsi and antennae reddish-brown. Head sparsely covered with whitish pubescence. Scutellum densely covered with white pubescence. Elytra covered with whitish pubescence enclosing somewhat large, round patch on subbasal area, in the middle of elytra, and preapical area. Pygidium sparsely covered with whitish pubescence. Rostrum short and wide, three times as wide as interocular width. Antennae shortly articulated and with proportion in length from base as 18:15:15:13:5:112:9:10:6:11:8:12, width of tenth 9 (120=1 mm). Pronotum 1.4 times as wide as long, the sides slightly arched, dorsal carina of pronotum clearly bisinuate, angulated before fifth intervals of elytra and in the middle. Lateral carina extremely short, basal angle carinate. Elytra parallel-sided and somewhat longer than wide (6:5), third interval wider than other intervals. Mesosternal process truncate between middle coxae. First ventrite depressed longitudinally in the middle. Posterior margin truncate between middle coxae. First ventrite depressed longitudinally in the middle. Posterior margin truncate between middle coxae. First ventrite depressed longitudinally in the middle. Posterior margin of third to fifth ventrites arched forward. Pygidium bent forward. Legs robust, femora clavate, and hind femora and tibia thicker than others. Female. Antennal proportions almost same with male. Ventrites not depressed and posterior margin not arched (Park et al., 2001).

MEASUREMENTS: Body length (excluding rostrum). 2.1–2.5 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea. Korea: Central, South.

Specimens examined: $9 \ \ 2 \ \$, Mt. Yeogisan, Suwon, GG, 3.vii.1995; $1 \ \$, Mt. Whangak, GB, 28.vi. 1982; $1 \ \$, Mt. Biseul, GB, 28.vi.1985; $1 \ \$, Kimcheon, GB, 2.vi.1997; $1 \ \$, Geochang, GN, 6.vi.1997; $1 \ \$, Koseong, GN, 3.vi.1997; $1 \ \$, Mt. Sudosan, GB, 16.vii.1996; $1 \ \$, Mt. Yeohangsan, Haman, GN, 20.vi. 1993; 2exs., Yongjusa, Annyeongri, Taeaneub Hwaseongsi, GG, 28.vi.-4.vii.2005; 2exs., Miwon-ri, Miwonmyeon, Cheonjusi, CB, 28.vi.-4.vii.2005; Saamri, Wonsammyeon, Cheoingu, Yonginsi, GG, 1.vii.2011.

KOREAN RECORD: Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Remarks: Park and Woo (1997) misidentified this species with *Rhaphitropis truncatoides*. Therefore, *R. truncatoides* is not distributed in Korea.

37. *Uncifer truncatus* (Sharp, 1891) (Pl. 6-37)

Neol-beun-ga-seum-ae-gi-so-ba-gu-mi (넓은가슴애기소바구미)

Tropideres truncatus Sharp, 1891: 315.

TL: Japan - Kashiwagi; Kurigahara; Chiuzenji; Nagasaki.

Original description. Nigro-fuscus, supra parum distincte variegatus, rostro parcius griseo-tomentoso, antennis pedibusque testaccis, illis gracilibus sat elongatis, his femoribus fuscis; prothoracis carina bisinuata, ab elytris parum remota. Long. 2¹/₂–3 mm.

This obscure insect is excessively similar to *T. pectoralis*, but may be distinguished on the upper side by the front of the head and rostrum not being white; while beneath it differs by the mesosternal process being truncate just in front of the middle coxae, instead of being prolonged between them. I have both sexes of *T. truncatus* before me; the male has the antennae slightly longer, and the ventral segments more abbreviated in the middle than they are in the female. The species apparently varies a good deal in colour and size (Sharp, 1891).

MEASUREMENTS: Body length (excluding rostrum). 2.6 mm.

BIOLOGICAL NOTES: One example found on an old plum tree in Nagasaki in 1886 (Sharp, 1891).

DISTRIBUTION: Korea, Japan, Russia (Far East - Sakhalin).

KOREA: JJ Is.

Specimens examined: 1 \, Mt. Hallasan, JJ, 10.viii.1984; Donggyedong, Jejusi, JJ, 16–23.vii.2005.

KOREAN RECORD: Park and Morimoto, 1999; Park et al., 2001.

Genus Unciferina Morimoto, 1981: 65.

Ae-so-ba-gu-mi-sok (애소바구미속)

Type species: *Unciferina japonica* Morimoto, 1981.

Rostrum transverse, flat, not carinate dorsally, sharply angulate to head on the underside, with a basal transverse carina on the underside. Eyes oblong-oval, dorso-lateral in position, antennal scrobes latero-ventral, invisible from above, foveiform. Antennae reaching the base of elytra, two basal segments strongly clavate, the remaining segments longer than wide, club loosely articulated, broader than funicle, not flattened. Pronotum transverse, widest at the lateral angles of carina, disk evenly convex, not carinate, not depressed, dorsal carina bisinuate and close to base, very weakly and evenly concave posteriorly in the median area, rectangularly rounded at sides, lateral carinae very short, carinulae present, short. Elytra subcylindrical, as wide as and twice as long as pronotum, basal margin arched anteriorly and covering the part of pronotum behind carina, intervals flat or slightly convex, much wider than striae, punctate-striae regular, sixth to eighth striae not reaching the base, but ending behind humeral callus, subbasal and subapical swellings obsolete. Front coxae narrowly separated. Mesosternal process oblique, flat, truncate between middle coxae. Femora clavate, tibiae straight, tarsi about as long as tibiae, first segment as long as the remaining combined. This genus is close to *Uncifer* Jordan and *Epiplaterus* Jordan, but separable from the former by the sharply angulate rostrum to head and transversely carinate base of rostrum on the underside, and from the latter by the acute hind angles of pronotum (Morimoto, 1981).

Number of species: 5 species (2 species in Korea).

DISTRIBUTION: Palaearctic.

Remarks: This genus was separated from other genera with the above characters, but we think it may need re-examination. All species are recorded only with females and most characters of the Korean species coincide with the description of the genus, but Korean species are not carinate at the base of the rostrum on the underside.

Key to the species of genus Unciferina

- 1. Dorsal carina of pronotum slightly arched posteriorly and weakly hooked at each side. Round markings on basal area of elytra almost touching basal margin U. nigrothoracica

38. Unciferina nigrothoracica Park, sp. nov. (Pls. 6-38, 13-38)

Bam-saek-ga-seum-ae-so-ba-gu-mi (밤색가슴애소바구미)

Description. **Male**. Body brown, except dark brown pronotum and frons; antennae and legs brown. Forehead between eyes 0.55 times as wide as rostrum. Eyes slightly separated from antennal socket and almost round; slight emargination next to antennal socket. Antennae with proportions in length from 3rd to 11th as 4.8:3.7:3.5:3.1:3:2.7:4.5:3:5.5. Head and pronotum reticulate. Pronotum almost covered with whitish-yellow pubescence, except somewhat dark pubescence in middle. Dorsal carina close to base, very weakly and almost evenly concave posteriorly in the median area and slightly bent posteriorly at sides. Basal angles of pronotum slightly projected. Scutellum very small and almost invisible. Elytra with a pair of brownish, round pubescent spots on basal area; a spot close to anterior margin in broad and whitish, transverse band. Elytral declivity covered with white and yellow pubescence. Legs with slightly clavate femur. Tibia without spur or spine; 2nd tarsomere as long as 3rd; 3rd tarsomere deeply bilobed. Pygidium wider than long, straight, narrowing posteriorly, then rounded at apex. Mesosternal process flat, oblique, truncate between middle coxae. Pygidium slightly wider than long. Tegmen of genitalia rapidly narrowing anteriorly, thence swelling like a bulb at the end. Swelling of tegmen with a pair of tufts. Pedon of aedeagus truncated. **Female**. Frons between eyes 0.58 times as wide as rostrum.

MEASUREMENTS: Body length (excluding rostrum). 1.7–1.9 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea.

Korea: Central.

Specimens examined: Holotype: 1♂, Yongjusa, Taean-eub, Hwaseong-si, GG, 12-19.vii.2005;

Paratype: 1 \, Yongjusa, Taean-eub, Hwaseong-si, GG, 28.vi.-04.vii.2005.

Remarks: This species is new to science in this study.

39. *Unciferina oculimaculata* Park, sp. nov. (Pls. 7-39, 13-39)

Du-nun-mu-nui-ae-so-ba-gu-mi (두눈무늬애소바구미)

Description: **Male**. Body dark brown except reddish-brown antennae and legs. Frons between eyes 0.42–0.49 times as wide as rostrum. Eyes slightly separated from antennal socket and clearly emarginate next to the antennal socket. Antennae with proportions in length from 3rd to 11th as 5:4.8:4.5:4:3.3:3.3:4.5:3.3:6. Head and pronotum reticulate. Pronotum almost covered with whitish-

yellow pubescence except banded area with brown pubescence in the middle. Dorsal carina close to base, concave posteriorly in the median area and strongly bent posteriorly at sides. Basal angles of pronotum strongly projected. Scutellum very small and almost invisible. Elytra with a pair of brownish, round, pubescent spots on the basal area. The spot somewhat separated from anterior margin in the broad and whitish, transverse band. Elytral declivity covered with white and yellow pubescence. Legs with slightly clavate femur. Tibia without spur or spine and 2nd tarsomere longer than 3rd; 3rd tarsomere deeply bilobed. Pygidium as wide as long, straight, narrowing posteriorly, thence rounded at apex. Mesosternal process flat, oblique, truncated between middle coxae. Tegmen of genitalia narrowing anteriorly, thence swelling like a bulb at the end. Swelling of tegmen with a pair of tufts. Pedon of aedeagus arched anteriorly. **Female**. Forehead between eyes 0.56–0.6 times as wide as rostrum.

MEASUREMENTS: Body length (excluding rostrum). 1.9–2.2 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea. Korea: Central.

Remarks: This species is new to science in this study.

Subfamily Choraginae Kirby, 1819

Kko-ma-so-ba-gu-mi-a-gwa (꼬마소바구미아과)

Key to the tribes of subfamily Choraginae

	1. Eyes circular, the upper edges not closer to each other than the lower ······	Araecerını
-	- Eyes oblong-oval, the upper edges closer to each other than the lower	Choragini

Tribe Araecerini Lacordaire, 1865

Sul-so-ba-gu-mi-jok (술소바구미족)

Key to the genera of tribe Araecerini

Genus Araecerus Schoenherr, 1823

Sul-so-ba-gu-mi-sok (술소바구미속)

Type species: Anthribus coffeae Fabricius, 1801=Curculio fasciculatus DeGeer, 1775.

Synonym: *Araeocerus* Schoenherr, 1839: 273.

Arrhaecerus Germar, 1829: 357 (Type species: Anthribus coffeae Fabricius, 1801=Curculio

fasciculatus DeGeer, 1775).

Head continuously convex in dorsal outline with the rostrum; eyes rather large, lateral, entire, round or oval, strongly convex, laterally protuberant, half or more than half as broad as the interocular area; antennae inserted at the inner lower margins of the eyes, upper margin of scrobes contiguous with eye, inner margins of scrobes not conspicuously elevated, not tuberculiform, the interscrobal distance distinctly narrower than the interocular area. Rostrum from scrobes to base of labrum less than half as long as head and there less than half as long as broad, dorsally convex, rather thick; mandibles with an acute antemedian tooth. Antennae not or hardly reaching past the base of the prothorax; first segment arcuate, stouter and slightly longer than two; two shorter and somewhat stouter than three, three to eight similar in shape but each successively shorter; nine, ten, and eleven expanded and flattened to form a loose club, these segments subequal in length; eight and nine subequal in length. Prothorax transverse, convex, dorsal carina basal, lateral carina short, not reaching the middle of the side and forming either an oblique or obtuse angle with the dorsal carina, baso-lateral carinulae indistinct. Scutellum visible. Elytra subparallel-sided before the declivity, punctate-striate, about twice as long as the prothorax. Legs rather slender, tibiae subcylindrical, as long as femora; first tarsal segment longer than two plus three, two longer than broad, longer than three, three rather small, not or hardly broader than two, claws each with a sharp subbasal tooth. Sternum with fore coxae larger and more prominent than mesocoxae, very narrowly separated, mid and hind coxae distinctly and subequally separated, hind coxae transverse, almost reaching the elytra; metasternum between mid and hind coxae broader than a metacoxa at the trochanter (Zimmermann, 1938).

Number of species: 70 species (2 species in Korea).

DISTRIBUTION: Cosmopolitan.

Key to the species of genus Araecerus

40. *Araecerus fasciculatus* (DeGeer, 1775) (Pls. 7-40, 13-40)

Sul-so-ba-gu-mi(술소바구미)

Curculio fasciculatus DeGeer, 1775: 276.

Bruchus cacao Fabricius, 1775: 64.

Bruchus peregrinus Herbst, 1797: 168.

Bruchus capsinicola Fabricius, 1798: 159.

Anthribus coffeae Fabricius, 1801.

Amblicerus japonicus Thunberg, 1815: 122.

Anthribus alternans Germar, 1824: 175.

Phloeobius griseus Stephens, 1831: 211.

Cratoparis parvirostris Thomson, 1858: 113. [DA]

Araecerus seminarius Chevrolat, 1871: 7.

Tropideres mateui Cobos, 1954: 41.

TL: India.

Redescription: Body reddish-brown to blackish-brown covered with yellowish and dark brown pubescence. Antennae and legs yellowish-brown except dark brown antennae. Head reticulate and continuously convex from vertex to end of rostrum; eyes rather large, lateral and oval with a thin keel on frons. Antennae inserted at inner lower margins of eyes, upper margin of scrobes contiguous with eye. The interscrobal distance distinctly narrower than interocular width. Rostrum much shorter than wide. Dorsal carina of pronotum basal and slightly concave, lateral carina reaching 1/3 part of lateral margin. Basal angle clearly angulate and basal carinula short and almost contacting dorsal carina just before the basal angle. Scutellum clear and covered with yellow pubescence. Elytra covered with tessellate derm and pubescence, slightly swelling at base. Legs slender, femur slightly clavate, tibia long and slender; 1st tarsomere as long as the remaing combined and two times as long as 2nd; 3rd tarsomere clearly bilobed, 4th almost invisible. Pygidium slightly longer than wide. **Female**. Pygidium strongly pointed.

MEASUREMENTS: Body length (excluding rostrum). 2.5-4.0 mm.

BIOLOGICAL NOTES: This species is known to be an important pest of several stored food products such as coffee, cocoa, yams, maize, corn, groundnuts, garlic, and jujube.

DISTRIBUTION: Cosmopolitan.

KOREA: Central.

Specimens examined: Is. Heuksando, JN, 13.viii.1981; 4exs., Seoul, 25.viii.1992; Eoem, JJ, 14.vii. 1993; 9exs., Seoul, 20.x.1993; 3exs., Suwon, GG, 24.viii.1995; Bukjeju, JJ, 18.ix.1996; Daho, JJ, 19.ix. 1996; Namwon, Namjeju, JJ, 2.viii.1997; 3exs., Seosan, CN, 5.ix.1997; 8exs., Seoguipo, JJ, 27.viii.1997; Suwon, GG, 18.iii.1998; Seoul, 23.v.1998; Mt. Baekunsan, Okryongmyeon, Gwangyangsi, JN, 20.vii. 2001; CALS, Seodundong, Suwon, GG, 21.x.2001; Gwanakgu, Seoul, 30.vii.2001; Suwon, GG, 15.vii. 2001; Yeosu, JN, 20.ix.2009.

KOREAN RECORD: Yokoo and Taguchi, 1938; Doi, 1938; Cho, 1957; Kwon and Lee, 1986; ESK/KSAE, 1994; Park and Morimoto, 1999; Park et al., 2001.

REMARKS: Nine individuals were collected from the zuzube tree in Korea.

41. *Araecerus tarsalis* Sharp, 1891 (Pls. 7-41, 13-41)

Jjal-beun-bal-sul-so-ba-gu-mi(짧은발술소바구미)

Araecerus tarsalis Sharp, 1891: 323.

TL: Japan - Kobe; Kiga; Miyanoshita; Nikko; Kashiwagi; Chiuzenji; Awomori; Fuji.

Original description: Brevis, convexus, nigricans, antennis pedibusque rufis, his variegatis, illis clava nigricante; supra in thorace elytrisque setosulis variegatis, ornatus. Lon. $3^{1}/2$ mm. Mas. Tarsis anterioribus dilatatis.

This species is closely allied to *A. fasciculatus*, but is of slightly shorter form, more variegated above, with shorter prothorax and club of the antennae, and with the male characeters different. In this latter sex, the front tarsi are notably larger than they are in the female, being both longer and broader; and in this sex the apex of the pygidium is rounded and ciliate, while in the female it is acuminate. This species varies much in color and size; some specimens are nearly black and only slightly variegate, except that the basal parts of the antennae are constantly yellow (Sharp, 1891).

Additional description. Elytra clearly tessellate with yellowish and blackish patches. Tibia with granules on the ventral side. The granules clear, tooth-like in males but small in females. 1st tarsomere 2.5–3 times as long as wide.

MEASUREMENTS: Body length (excluding rostrum). 2.1-3.7 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, China, Japan, Oriental region.

KOREA: South, Jeju Is., Ulreung Is.

SPECIMENS EXAMINED: Jungmun, JJ, 12.viii.1984; Namyang, Is. Ulreung, GB, 24.v.1995; Is. Uleung, GB, 25.v.1995; Is. Ulreung, GB, 11.viii.1995; Is. Ulreung, GB, 2.v.1995; Is. Ulreung, GB, 1.x.1995; Is. Ulreung, GB, 3.x.1995; Is. Juk, GN, 17.viii.1995; Aewol, Bukcheju, JJ, 26.viii.1997; Jeolmul, Donggyedong, JJ, 13–20.viii.2005; Aewoleub, JJ, 2.iv.2009; Is. Ulreung, Ulreungeub, Ulreunggun, GB, 15.i.2012.

KOREAN RECORD: Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Genus Deropygus Sharp, 1891: 326.

Mu-nui-ba-gi-so-ba-gu-mi-sok (무늬박이소바구미속)

Type species: Deropygus histrio Sharp, 1891: 326 (designated by Morimoto, 1978).

Original description: Inter Araecerum et Choragum locandus; discedit antennis inter sese parum distantibus, coxisque intermediis approximatis.

There can be no question as to the position of this genus, for its characters are almost those of *Choragus*, except as to the two points mentioned above. The eyes are round and convex, however, and formed more like those of *Araecerus*; the antennae are slender, with large, excessively fragile club, and the inner margin of their cavities of insertion extends considerably farther inwards than the inner edge of the eye does. The thoracic carina is basal, and is continued along the sides for about half of the length. The mesosternum forms a small subrhomboidal piece in front of the mid-

dle coxae, and is connected with the metasternal process only by a narrow isthmus. The pygidium is remarkably slender, and projects somewhat downwards in a beak-like manner (Sharp, 1891).

Redescripted diagnosis: **Male**. Head and prothorax blackish-brown, 1st and 2nd antennal antennomeres and legs dark brown. Interocular area distinctly broader than interscrobal area; eyes medium in size, semiglobular, relatively distant to each other; antennae with wide club. Each abdominal sternite long, 1st to 5th visible sternites almost horizontally jointed as seen from side, not having any setae; pygidium subtriangular, devoid of any costa, lateral margins gradually convergent towards rounded apex. Ventral plate of penis slightly longer than dorsal plate. **Female**. Pygidium subtriangular, devoid of any costa, with lateral margins gradually convergent apically and apex somewhat pointed (Senoh, 1984).

REMARKS: This genus is similar to *Stenorhis* Jordan, 1928, but differs from the latter in the following characters: rostrum distinct; antennal club depressed dorso-ventrally; eyes prominent; prothorax not so long; legs not so short (Senoh, 1984).

Number of species: 48 species (1 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

42. *Deropygus histrio* Sharp, 1891 (Pl. 7-42)

Mu-nui-ba-gi-so-ba-gu-mi (무늬박이소바구미)

Deropygus histrio Sharp, 1891: 326.

TL: Japan - Ichiuchi.

Original description: Fusco-niger, subopacus, subtiliter tomentosus, superne albido-picturatus antennarum basi pedibusque testaceis. Long. 3 mm.

Antennae with an elongate, setose club, which is dark in colour, formed by three, slightly articulated joints, the first of which is a little larger. Head and rostrum inflexed. Thorax rather short, densely and indistinctly sculptured, quite dull, dark in colour, with three white spots along front, three along base, and one on each side. There are a series of rather large punctures on elytra; these, however, are rendered indistinct by scales, which are very fine, dark in colour, and variegated by numerous white spots. The front legs are sordid testaceous, the hind pair are more dusky in colour (Sharp, 1891).

Additional description. Antennae and legs pale brown except dark brown club. Pronotum and eyltra clearly tessellate with yellowish pubescent patches. Interscrobal width narrower than interocular width. Antennae inserted dorsally and scrobe deeply furrowed and hooked anteriorly. Dorsal carina of pronotum basal, lateral carina reaching middle of lateral margin, basal angle obtuse. Basal carinula and dorsal carina apart. Tarsi short, 1st tarsomere as long as 2nd and 3rd combined; 3rd tarsomere clearly bilobed. Pygidium with minute tubercles, without any transverse border on surface, pointed and slightly hooked outwardly at apical area.

MEASUREMENTS: Body length (excluding rostrum). 2.6–3.5 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, Japan, Taiwan.

KOREA: Central, South.

Specimens examined: Jinnaeri, Dongmyeon, Chuncheonsi, 16.–29.vii.2009; Jinnaeri, Dongmyeon, Chuncheonsi, 16.viii.–25.ix.2009; Dapcheonri, Ibanseongmyeon, Jinjusi, GN, 7–17.vii.2009; Dapcheonri, Ibanseongmyeon, Jinjusi, GN, 17.vii.–3.viii.2009.

KOREAN RECORD: Senoh, 1987; Hayashi et al., 1994; ESK/KSAE, 1994; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Genus Valenfriesia Alonso-Zarazaga and Lyal, 1999: 38.

Ttang-kong-so-ba-gu-mi-sok (땅콩소바구미속)

Type species: *Notioxenus bewickii* Wollaston, 1861. (Replacement name by Alonso-Zarazaga and Lyal, 1999: 38).

Synonym: Notioxenus Wollaston, 1861: 212 (non Motschulsky, 1858).

This genus has hitherto only been recognised as found in St. Helena, where it possesses numerous species, and forms one of the most remarkable elements of the coleopterous fauna. The St. Helena species of the genus differ considerably in some structural points, such as the coarseness of the facets of the eyes, and the width of the intercoxal porcess of the abdomen. As long as they remain in one genus, the two Japanese species I here describe must also be placed in it, and likewise the New Zealand *Anthribus inflatus* Sharp. This genus, hitherto considered peculiar to St. Helena, is now found to exist in three most widely separated parts of the world. If the St. Helena genus were to be divided, and this will probably be found necessary when the classification of the family is remodelled, then there will be two distinct genera, and the New Zealand species will be another. *Araeocerus purpureus*, Brown, should also form a new genus between *Notioxenus* and *Homoeodera* (Sharp, 1891). And the Asian species in this genus should be redefined as a separated genus.

Number of species: 19 species (1 species in Korea).

DISTRIBUTION: Palaearctic.

43. Valenfriesia wollastoni (Sharp, 1891) (Pl. 7-43)

Ttang-kong-mo-yang-so-ba-gu-mi(땅콩모양소바구미)

Notioxenus wollastoni Sharp, 1891: 327.

TL: Japan - Kobe; Kiga; Miyanoshita; Nikko; Kashiwagi; Chiuzenji; Awomori; Fuji.

Original description: Elongatus, angustulus, fuscus, tomentosus, indistincte griseo-variegatus, antennarum basi, pedibusque rufis.

Long, 2⁷/₈ mm. Antennae with the basal joint stout, elongate, curvate; second joint shorter, but

equally stout; club very elongate. Thorax large, the base curvate, the hind angles slightly marked, remote from the elytra, the surface very densely but indistinctly sculptured, very indistinctly variegate by some scanty pallid pubescence. Elytra narrow, with rounded shoulders and series of deep, coarse pubescence, indistinctly spotted by scanty pallid hairs (Sharp, 1891).

Additional description. Body blackish-brown except reddish-brown legs and antennae. Surface covered with white and brown pubescent patches. Antennae inserted at dorso-lateral area of rostrum. Eyes almost round. Head and pronotum reticulate. Dorsal carina of pronotum concave posteriorly and slightly hooked anteriorly at sides; lateral carina and basal carinulae absent. Elytral strioles deeply punctate, intervals slightly elevated. Pygidium with V-shaped linear projections at middle (Park et al., 2012).

MEASUREMENTS: Body length (excluding rostrum). 1.7–1.8 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, Japan, Russia (Far East - Kuriles).

KOREA: South.

Specimens examined: Dapcheon-ri, Ibanseong-myeon, Jinju-si, GN, 17.vii.-3.viii.2009; Hwaeomsa,

Mt. Jirisan, JN, 9.iii.–15.vii.2011; Dosundong, Seoguiposi, JJ, 20.vii.2012.

REMARKS: This species is newly recorded to the Korean fauna in this study.

Genus Xanthoderopygus Senoh, 1984: 31.

Ap-ju-hong-mu-nui-so-ba-gu-mi-sok (앞주홍무늬소바구미속)

Type species: *Deropygus flavicollis* Morimoto, 1978.

Male. Head, prothorax, basal two antennomeres, and legs yellowish. Interocular area evidently narrower than interscrobal area; eyes very large, strongly expanded laterally and relatively approximate to each other; antennal club relatively slender. Each abdominal sternite contracted except for terminal one; as seen from side, 1st to 4th visible sternites conjoined almost horizontal or moderately oblique, terminal one distinctly slanting, with ten or so yellowish setae along hind margin; pygidium nearly oblong, lateral margins nearly parallel, surface uneven, bearing a longitudinal costa in some species. Ventral plate of penis remarkably longer than dorsal plate. **Female**. Head and prothorax black to dark brown. Abdominal sternites contracted; as seen from side, 1st to 5th visible sternites almost horizontal and not having any setae; pygidium subtriangular, gradually convergent towards blunt apex, with a transverse bladed keel on disc (Senoh, 1984).

Number of species: 7 species (1 species in Korea).

DISTRIBUTION: Palaearctic.

Remarks: This genus is closely related to *Deropygus* Sharp, 1891, but distinguished from the latter in the following characters: interocular area evidently narrower than interscrobal area; eyes very large, strongly expanded laterally and relatively approximate to each other; each of 1st to 4th abdominal sternites contracted; 5th abdominal sternite distinctly slanting, with ten or so setae along hind margin in male; pygidium nearly oblong in male (Senoh, 1984).

44. Xanthoderopygus watanabei Senoh, 1984 (Pls. 7-44, 13-44)

Ab-ju-hong-mu-neui-so-ba-gu-mi(앞주홍무늬소바구미)

Xanthoderopygus watanabei Senoh, 1984.

TL: Japan.

Original description: Male. Body elliptical and well convex dorsally, whole surface sparsely covered with pale yellow and dark brownish hairs, which are forming ill-defined patches and a pale, yellowish, oblong patch usually present before middle of elytral suture. Moderately shining. Black, head yellowish, though narrowly infuscate behind, prothorax predominantly yellowishbrown, sometimes vaguely darkened on median area of pronotum, the dark maculation variable in shape and size; basal two segments of antennae yellowish and the remainings blackish brown, legs yellowish. Head small and subtriangular, nearly flattened dorsally, rather closely and roughly punctured and moderately closely setose, the setae pale yellow and decumbent forwards; surface covered with microscopic ground sculpture which is visible under high magnification; interocular area almost as broad as interscrobal area; eyes very large, strongly expanded laterally and moderately approximate to each other; rostrum short, somewhat divergent apically, surface sparsely clothed with pale yellow and relatively long hairs. Antennae relatively short, not reaching posterior margin of pronotum, basal two segments globular and equal in length to each other, 3rd to 8th slender, subequal in length to one another, 9th to 11th clavate, 9th dilated towards apex, a little longer than broad, 10th subtriangular, hardly longer than broad, and slightly broader than 9th, 11th elliptical, about 1.5 times as long as broad. Pronotum trapezoidal (width/length=1.5), narrowed anteriorly, convex above; lateral sides abruptly deflexed in anterior half and somewhat deplanate in posterior half; lateral margins strongly bordered in basal half, the border continuing onto dorsal carina; the angle formed by lateral border and dorsal carina distinctly an obtuse angle; anterior angles obscure and not visible from above; surface moderately closely and roughly punctured, covered with microscopic ground sculpture as on head, rather sparingly clothed with relatively long, yellowish hairs which are decumbent forwards; ventral side of meso- and metathorax moderately closely covered with pale yellow and rather fine hairs. Scutellum minute and punctiform. Elytra oblong, about 1.5 times as long as broad, parallel-sided in basal two-thirds, then gradually convergent towards apex; striae distinct, with strong and coarse punctures; intervals covered with ground sculpture and sparsely with hairs as on pronotum.

Abdominal sternites each covered with microscopic ground sculpture and rather sparingly clothed with fine pubescence; as seen from side, shortened 1st to 4th and 8th visible sternites almost horizontal, terminal one distinctly slanting, and fringed with ten or so yellowish, short setae along hind margin. Pygidium nearly oblong, about 1.4 times as long as basal width, margins distinctly bordered throughout, lateral margin almost straight, hind one emarginated; surface covered with rather coarse and distinct ground sculpture all over, and sparsely clothed with hairs similar to those on elytra; each lateral side provided with a weak longitudinal depression, and devoid of any costa. Legs relatively long, posterior tibia furnished with a number of yellowish, short spines on upperside of apical one-third; protarsus shorter than the mesotarsus, which is shorter than metatarsus. **Female**. First to terminal abdominal sternites almost horizontal, though apex of terminal one somewhat angled downwards and not having any setae; pygidium elongate, triangular, about 1.5 times as long as basal width; lateral sides gradually convergent towards pointed apex; surface covered with coarse and distinct ground sculpture all over, bearing sparse, pale yellowish hairs, and desti-

tute of any costa. Legs with femora unarmed.

MEASUREMENTS: Body length (excluding rostrum). 1.9 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, Japan (Tsushima).

KOREA: Central.

Specimens examined: 1♂, Mt. Odaesan, GW, 27.v.1998; Anyangdong, Manangu, Anyangsi, GG,

20.vii.2007.

KOREAN RECORD: Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Tribe Choragini Kirby, 1819

Kko-ma-so-ba-gu-mi-jok(꼬마소바구미족)

Key to the genera of tribe Choragini

Genus Choragus Kirby, 1819: 447.

Kko-ma-so-ba-gu-mi-sok (꼬마소바구미속)

Type species: *Choragus sheppardi* Kirby, 1819.

SYNONYM: Alticopus Villa and Villa, 1833: 35 (Type species: Alticopus galeazzii Villa and Villa, 1833

=Choragus sheppardi Kirby, 1819).

Halticopus Agassiz, 1846L: 171 (unjustified emendation).

Number of species: 52 species (2 species in Korea).

DISTRIBUTION: Afrotropical, Neacrtic, Oriental, Palaearctic.

Key to the species of genus *Choragus*

Lateral carina short but obviously present. Hind angles of pronotum with carinula and sharply prolonged beneath humeral angle of elytra
 Lateral carina short but obviously present. Hind angles of pronotum with carinula and sharply prolonged beneath humeral angle of elytra

45. Choragus compactus Sharp, 1891 (Pl. 8-45)

Kko-ma-so-ba-gu-mi (꼬마소바구미)

Choragus compactus Sharp, 1891: 323.

TL: Japan - Nikko.

Original description: Niger, densissime punctatus, opacus, antennis elongatis, articulis basalibus rufis pedibus; elytris seriatim fortiter, regulariter punctatis. Long. $3^{1}/2$ mm.

Antennae with the basal joint elongate and much curved, second about as long; club elongate, very loosely articulated and fragile. Head broad, eyes large. Thorax very densely and finely rugulose, blackish, somewhat piceous in front, and with an excessively minute pubescence about the sides, giving it a silvery reflection in certain light; the hind angles prolonged behind beneath the shoulders of the elytra: the latter with regular series of very coarse punctures, the interstices rather convex, very densely punctate. Legs stout (Sharp, 1891).

Additional description: Upper margin of eyes closer to each other than lower margins. Interocular width as wide as interscrobal width. Dorsal carina basal, almost horizontal and slightly hooked posteriorly at sides. Lateral carina short but clear, basal angle connected with basal carinula. Basal carinula somewhat long, 3 times as long as lateral carina and extended poteriorly. Tarsi short and stout; 1st tarsomere as long as 2nd and 3rd combined. 3rd tarsomere strongly bilobed.

MEASUREMENTS: Body length (excluding rostrum). 3.6 mm.

BIOLOGICAL NOTES: Unknown. DISTRIBUTION: Korea, Japan.

Korea: South.

SPECIMENS EXAMINED: 1° , Piagol, Gurye, JN, 17.vii.1968.

KOREAN RECORD: Senoh, 1987; ESK/KSAE, 1994; Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

46. *Choragus cryphaloides* Sharp, 1891 (Pls. 8-46, 14-46)

Gal-saek-kko-ma-so-ba-gu-mi(갈색꼬마소바구미)

Choragus cryphaloides Sharp, 1891: 325.

TL: Japan - Nikko; Kurigahara.

Original description: Brevis, minutus, rufo-testaceus, elytris abdomineque fuscis, antennarum clava nigricante; prothorace brevi, densissime rugoso-punctato; elytris seriatim fortiter punctatis, interstitiis convexis, sat dense punctatis, subnitidis. Long. 2 mm.

The bright red colour of the anterior parts of the body distinguishes this species; the hind angles of the thorax are rectangular, and not produced under the shoulders of the elytra. The punctures forming the series on the wing-cases are large and distinct, and the minute pubescence is quite evident. In the male the ventral segments are short, and the basal three or four are broadly impressed on the middle (Sharp, 1891).

Additional description: Upper margin of eyes closer to each other than lower margins. Intero-

cular width slightly wider than interscrobal width. Dorsal carina basal, almost horizontal and slightly hooked posteriorly at sides. Lateral carina short but clear and basal angle connected with basal carinula. Basal carinula short and right angled with dorsal carina. Tarsi short and as wide as tibia. 1st tarsomere as long as 2nd and 3rd combined, 3rd tarsomere strongly bilobed.

MEASUREMENTS: Body length (excluding rostrum). 1.4–2.0 mm.

BIOLOGICAL NOTES: Several individuals were collected from small dead branches of broadleaf trees. They usually jump and hide when they sense danger.

DISTRIBUTION: Korea, Japan, Russia (Far East).

KOREA: Central.

Specimens examined: $1 \, \mathcal{A}$, Mt. Yeogisan, GG, 3.vii.1995; $1 \, \mathcal{A}$, Danyang, CB, 18.v.1997; $2 \, \mathcal{A} 10 \, \mathcal{A}$, Daejeon, CN, 20.v.1998; $1 \, \mathcal{A} 3 \, \mathcal{A}$, Mt. Sunggosan, CN, 17.v.1998; Mt. Myeongseong, Gasanmyeon, Pocheonsi, GG, 14.vi.1998.

KOREAN RECORD: Park et al., 2001; Hong et al., 2001; Paek et al., 2010.

Genus Citacalus Johraku, 1953: 13.

Dol-gi-so-ba-gu-mi-sok (돌기소바구미속)

Type species: Citacalus pygidialis Johraku, 1953.

Head rather broad; eyes large, very approximate, divergent at front; rostrum very short and slightly dilated to apex. Antenna slender, 1st and 2nd joints large and stout, 3rd to the 8th slender, 9th to 11th forming loosely articulated club. Maxillary palpus setaceous and pointed to apex. Pronotum broad, rather convex and narrowed to front, with basal carina very close to elytra. Elytra nearly as broad as pronotum at base, striation rather distinct. Male pygidium having a longitudinal keel near apex; in females, sides having triangular projection near apex. Male genitalia radically different from *Choragus* Kirby; genital segment stout, very large and strongly chitinized. This genus is apparently related to *Choragus* Kirby, but the male genitalia are radically different and the pygidium markedly characteristic (Johraku, 1953).

Number of species: 1 species (1 species in Korea).

DISTRIBUTION: Palaearctic.

47. *Citacalus pygidialis* Johraku, 1953 (Pls. 8-47, 14-47)

Dol-gi-kko-ri-so-ba-gu-mi(돌기꼬리소바구미)

Citacalus pygidialis Johraku, 1953: 13.

TL: Japan - Kita-Karuizawa; near Nojiri lake.

Original description: Brownishi-black, with the under surface, legs, and bases of the antennae paler; covered with delicate, greyish pubescence. The head rather strongly punctured, with the eyes very large, very approximate and separated by 2/5 or 1/2 length of the rostrum. The antenna slen-

der, with the club loosely articulated. The apical joint of the maxillary palpus moderately long, pointed to the apex. The pronotum comparatively elongate but shorter than it is broad, with the basal carina not angulate and the hind angles not produced. The 1st and 2nd elytral striae uncommon, and the interstices very minutely punctured and somewhat shining. The male pygidium triangular, longer than broad, pointed to the apex and having a longitudinal keel near the apex. The female pygidium broad, obtusely angulated at the apex and sculptured with very large punctures, with each lateral margin having a triangular projection near the apex. The ventral segment very abbreviated, but the 5th segment is long; in the male, about as long as the two preceding segments together; in females, nearly as long as the three preceding together and having a pair of cavities near the apex. The legs slender, with the 1st joint of the protarsus nearly as long as the two succeeding ones together. The male genitalia very stout, with the apex of the median lobe projecting towards the lower side, the apical part of the internal sac partially chitinized, the tegminal cap-piece slender, the tegminal strut long, the genital segment shears-shaped, stout, very large, strongly chitinized, nearly as long as the median lobe and median stout put together, and having various hairs, processes, and sculptures (Johraku, 1953).

MEASUREMENTS: Body length (excluding rostrum). 1.8–2.2 mm.

BIOLOGICAL NOTES: Several individuals were collected from small dead branches of broadleaf trees.

DISTRIBUTION: Korea, Japan.

KOREA: Central, South.

Specimens examined: 3exs., Deokyang-gu, Goyang-si, GG, 23.vii.-24.viii.2005; 17exs., Mt. Deokyusan, Muju-gun, JB, 18.v.-10.vi.2007.

Remarks: "The 1st and 2nd elytral striae uncommon" in original description seems to mean that scutellary striae connected to 1st striae and the 1st and 2nd striae combined with 2nd striae before the middle). This species is newly recorded to the Korean fauna in this study.

Family Brachyceridae Billberg, 1820

Teok-ba-gu-mi-gwa (턱바구미과)

The family Brachyceridae has such apomorphic character states as the precoxal part of the prothorax shorter than the postcoxal one, connate elytra, secondarily thickened rostrum, and true 8th sternite in males; it possesses the plesiomorphic character state of a reduced tegmen, similar to the groups Dryophthoridae, Curculionidae, Scolytidae, and Platypodidae (Legalov, 2006). Most of them are flightless because the elytra are fused along the suture and the hind wings are vestigial. The larvae live in the soil and feed on the roots of the host plant, while the adults feed on leaves.

The subfamily Desmidophorinae, which comprises the genus *Desmidophorus*, was proposed by Morimoto (1962) in the family Brentidae, based principally on the brentid-apionid type of aedeagus and undeveloped proventriculus. Recently, it was transferred to the subfamily Ocladiinae in the family Brachyceridae as a tribe based on the primitive features in the aedeagus, proventriculus, and larval characters, such as the antennal sensorium being conical, oval, or semiellipsoidal, not or hardly longer than wide, with collar-like structure at the base, clypeus with two setae and a sensilum on each side, and legs absent (Alonso-Zarazaga and Lyal, 1999; Morimoto and Kojima, 2006). The mandibular scar on the mandibles of the genus *Desmidophorus* is a special structure and the

edge of the scar is always slightly raised above the adjoining surface of the mandible. The mandibular scar serves as a support for a deciduous cusp, which normally breaks off soon after the emergence of the adult from the pupal chamber in the soil, though persisting in a few individuals. Members of the genus *Desmidophorus* Dejean, 1835 are widely distributed in the Oriental region and are considered pests of bast fibre crops. There are more than 70 species in this genus in Madagascar, the Oriental region, and East Asia. Among them, only 5 species are distributed in the Asian fauna (Colonnelli, 2011).

Hong et al. (2011) reported the family Brachyceridae with *Desmidophorus hebes* (Fabricius, 1781) for the first time in Korea.

Subfamily Ocladiinae Lacordaire, 1865

Teok-ba-gu-mi-a-gwa (턱바구미아과)

Tribe Desmidophorini Morimoto, 1962

Teok-ba-gu-mi-jok(턱바구미족)

Genus Desmidophorus Dejean, 1835

Teok-ba-gu-mi-sok (턱바구미속)

Type species: *Curculio hebes* Fabricius, 1781.

SYNONYM: *Desmidophorus* Dejean, 1835: 296.

Botrobatys Chevrolat, 1842: 671 (Type species: *Curculio fascicularis* Olivier, 1791). *Trichosomus* Chevrolat, 1881: 91 (Type species: *Curculio senex* Boheman, 1845).

Desmidophorinus Hubenthal, 1917: 111 (Type species: Desmidophorus aureolus Gyllenhal,

1837).

Pseudotrichosomus Hustache, 1925: 386 (Unjustified replacement name for Trichosomus Chevrolat).

Body oval, closely covered with scales. Antennae geniculate. Mandibular scar serving as a support for a deciduous cusp, which normally breaks off soon after the emergence of the adult from the pupal chamber in the soil, though persisting in a few individuals. Labial palpi 3-segmented. Front coxae separated. Prosternum before coxae deeply canaliculate (Hong et al., 2011).

Remarks: Members of this genus are pests of bast fibre crops. In the case of *Desmidophorus crassus* Hubenthal in Okinawa, Japan, adults are found from April/May to September, and feed on young branches of *Hibiscus* spp. They make oviposition holes in the pith of the branch and lay some eggs in the hole. Hatched larvae fall on the ground, crawl into the soil, and feed on the roots of *Hibiscus* spp. Larvae feed on roots externally in the soil by making feeding grooves and half burying the body in the groove. They make pupal cells in the soil in late winter, and the pupal duration must be short. New adults have been observed in February and March. The mandibular appendages break off soon after emergence from the soil (Morimoto and Kojima, 2006).

Number of species: 5 species in Asia (1 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

48. *Desmidophorus hebes* (Fabricius, 1781) (Pls. 8-48, 14-48)

Mu-gung-hwa-teok-ba-gu-mi (무궁화턱바구미)

Curculio hebes Fabricius, 1781: 174.

Desmidophorus aterrimus Aurivillius, 1891: 220. *Desmidophorus morphosus* Pascoe, 1888: 416.

TL: Bangladesh - Bengal.

Description: Body black, covered with black hairs, black hair tufts and light yellowish scales on short band at anterior margin and on apical part of elytra. Head semiglobular; eyes weakly convex, concealed by ocular lobes in repose; rostrum robust and short, reaching shallow concavity between mesocoxae, punctation roughly and largely concave, forming irregular rows, basal part covered with thin and long, decumbent, yellowish scales; antennal insertions subterminal, antennal scrobes oblique from slightly above middle to ventral side of base in lateral view, distant from eyes at base; antennae with 7 antennomeres in funicle, 1st antennomere much longer than its width, funicle with proportions in length from basal constriction from 1st antennomere to 7th as 29:22:20:18:14:12:13, 5th and 6th antennomeres as long as their widths, respectively, 7th segment shorter than its width (18); club compact, ovate and acuminate apically; mandibles move almost in a horizontal plane and occlude medially, triangular, slender, and more than twice as long as basal width dorsally, with median sharp tooth, dorsal cutting edge almost straight to base on left mandible, arcuate to base on right mandible, with deciduous appendage conspicuous on both mandibles; maxillary sinus weakly narrowed basally; maxillae with galea and lacinia fused, with three segments in palpi; labial palpi three-segmented on anterior margin of prementum; postmentum slender, very narrow, tapered basally; tentorium with gular margins narrow and divaricate at apex. Pronotum 1.5 times as wide as its length, nearly bell-shaped, narrowed anteriad, largely punctate with yellowish, wide scales and blackish, narrow scales, with decumbent black hairs at anterior part; ocular lobes present and short vibrissae. Scutellum narrow and long, nearly heart-shaped, concave, narrowed apically, covered with numerous brown scales. Elytra 1.5 times as wide as pronotum, with distinctly blunt humeri, slightly narrowed apically, rounded at apex, with narrow, short, light yellowish band on each side of anterior margin, connected with lateral band reaching 6th interval; striate punctures large and quadrate, interstices narrow, with tiny, short, black hair tufts; 3rd and 5th interstices with 3 large, black hair tufts, 7th interstice with 2 tufts. Legs robust, femora weakly clavate, not sulcate, toothed; tibiae flattened, denticulate externally, uncinate at inner apical corner, and in males, uncinate near outer apical corner from keeled flange, the latter unci small and obtuse on fore and hind tibiae, sharp on middle tibiae; hind tibiae with enclosed oval bevel surrounded by sharp keel and densely setose inside; third tarsomeres deeply bilobate, claws simple, free. Prosternum deep and U-shaped, concave between ocular lobes at anterior margin; pectoral canal deep, bare, bordered laterally with sharp carina in front of fore coxae, terminate at shallow, bare concavity between middle coxae on mesosternum; fore coxae as widely distant as middle coxae. Venter with 1st ventrite behind coxa as long as 2nd, and as long as 3rd and 4th combined, 1st suture deep, entire. 5th ventrite in female more convex in middle and more concave on each side than in male, shallowly concave in middle of posterior margin in male and densely covered with erect, yellowish hairs on each side. Male genitalia with 8th sternite undivided, crescent; 9th sternite ovate, lamellate; spiculum gastrale curved; aedeagus with dorsal plate, tegmen with large cap-piece, manubrium almost as long as apodeme (Hong et al., 2011).

MEASUREMENTS: Body length (excluding rostrum). 11–12 mm, width 7.0 mm.

BIOLOGICAL NOTES: Host plants are *Hibiscus syriacus* and *H. mutabilis* (Chao and Chen, 1980). Larvae primarily feed on roots in the soil, and adults oviposit in stems (Pandit et al., 1986).

DISTRIBUTION: Korea (Central), China (Shanghai, Jiangsu, Zhejiang, Jiangxi, Hubei, Hunan, Guangdong, Guangxi, Sichuan, Yunnan), Philippines, Vietnam, Thailand, Bangladesh, India, Pakistan.

Specimens examined: $2 \ 71 \ ?$, Baekripo beach, Taean-gun, CN, 28.v.2006; $1 \ 74 \ ?$, ditto, 24.vi.2006.

KOREAN RECORD: Hong et al., 2011.

Family Dryophthoridae Schoenherr, 1825

Wang-ba-gu-mi-gwa (왕바구미과)

The Dryophthoridae belong to the superfamily Curculionoidea and contain more than 1,100 species in 150 genera. Dryophthorids are generally large and brown to black weevils. The labrum is obliterated and the maxillary palpi are short and inflexible. The rostrum is present, long, and usually slender with a deep pleurostomal sinus. The hypostomal process is present and the mandibles have a subspherical to spherical postartis without a lateral sulcus. The maxillary palpi are 3-segmented. The prementum is very small and deeply retracted into the oral cavity, usually invisible externally. The antennae are inserted behind the middle of the rostrum at the base; antennal funicles have fewer than 6 antennomeres. The 1st and 2nd ventrites are fused together or are not articulated with a suture; other ventrites are deeply and similarly articulated to each other. The 7th tergite forms the pygidium in males.

Key to the species of family Dryophthoridae

1.	Antennal funicle of four articles; tarsus of five distinct tarsomeres; size small, total body length
	less than 4 mm ····· Dryophthorinae ···· D. corticalis
_	Antennal funicle of more than 4 articles; tarsus of five tarsomeres, but article 4 small and difficult
	to see at base of article 3; size small to large
2.	Front coxae contiguous
_	Front coxae distinctly (in some taxa, narrowly but clearly) separated
	Rhynchophorinae
3.	Tarsus with article 3 noticeably wider than article 2 and apparently bilobed; antennae inserted at
	base without antennal scrobe ······ Cryptodermatinae ····· C. fortunei
_	Tarsus with article 3 subequal in width to article 2; antennae inserted slightly behind the middle
	with antennal scrobe —————4
4.	Antennal funicle of six articles Orthognathinae S. gigas
_	Antennal funicle of six articles ······ Stromboscerinae ····· S. shirozui
5.	Size small, total body length less than 5 mm; front coxae widely separated
_	Size small to large, total body length greater than 5 mm; front coxae narrowly separated 6
6.	Scutellum small, longitudinally elongated

_	Scutellum large, inversely triangular
7.	Rostrum straight; 3 rd tarsomere widely lobed
_	Rostrum curved ventrally; 3 rd tarsomere slightly thicker than others, not lobed
	S. venatus vestitus

Subfamily Cryptodermatinae Bovie, 1908

Huin-jur-wang-ba-gu-mi-a-gwa (흰줄왕바구미아과)

Genus Cryptoderma Ritsema, 1885: 54.

Jur-wang-ba-gu-mi-sok (줄왕바구미속)

Type species: Calandra discors Fabricius, 1801.

SYNONYM: Nosoxylon Gistel, 1848: X (unused replacement name).

Oxyrhynchus Schoenherr, 1823: 1133 (non Leach, 1818).

Number of species: 4 species in Asia (1 species in Korea).

DISTRIBUTION: Palaearctic.

49. Cryptoderma fortunei (Waterhouse, 1853) (Pls. 8-49, 14-49)

Huin-jur-wang-ba-gu-mi (흰줄왕바구미)

Oxyrhynchus fortunei Waterhouse, 1853: 172.

TL: China.

Original description: Oblongo-ovatus, pulvere cervino tectus; thorace remote punctato, albo-tri-lineato; elytris seriatim ocellato-punctatis, interstitiis alternis clevatis, singulis linea alba ab humero ad medium suturae ducta, notatis.

Long. Corp., rostro excluso, lin. 7; latitudo lin. 2, 3/4; male, long 5, 3/4; lat. 2, 1/4. Patria. China Boreali.

Considerably larger and proportionately broader than *O. discors*; the dilated basal portion of the rostrum broader and shorter; punctation both on thorax and elytra less distinct, the punctures being smaller and more remote; interstices of striae of the elytra broader, alternate interstices very distinctly raised, subcarinate. The ridges formed by the fourth and sixth interstices are united at some distance from the apex of the elytra; the suture, on the hinder half, is also raised, and from the apex there is a short ridge which runs obliquely forwards and slighlty outwards to meet the second interstrial ridge. A series of very minute tubercles, each bearing a single pointed scale at its summit, is seen on each of the ridges mentioned. The general colour is sometimes ashy, sometimes very pale rufous brown. The middle pale band on the thorax does not extend quite to the base. On the forehead is a small fovea, and on the basal portion of the rostrum is a longitudinally impressed line; in

front of this the rostrum is keeled; in the female the keel is very short, but in the male it reaches about half way to the apex of the rostrum; here the rostrum is rather shorter than in the female, and strongly punctured; the scales extend beyond the point of insertion of the antenna, while in the female, scales extend only to the points mentioned, and the fore part of the rostrum is nearly smooth (Waterhouse, 1853).

MEASUREMENTS: Body length (excluding rostrum). 9.0–15.0 mm.

BIOLOGICAL NOTES: Unknown.

DISTRIBUTION: Korea, China, Japan, Taiwan.

KOREA: Central, South, Jeju Is.

Specimens examined: 1ex., Jeju, JJ, 18.vii.1985; 1ex., Jeju, JJ, 27.v.1992; 1ex., Jeju, JJ, 16.vii.1996; 1ex.,

Is. Anmyeondo, CN, 9–10.viii.1996; Dapcheonri, Ibanseongmyeon, Jinjusi, GN, 4–11.vii.2005. **KOREAN RECORD**: Kwon and Lee, 1986; ESK/KSAE, 1994: 211; Kim, 1995; Hong et al., 2001.

Subfamily Dryophthorinae Schoenherr, 1825

Sor-wang-ba-gu-mi-a-gwa (솔왕바구미아과)

Genus Dryophthorus Germar, 1824: 302.

Sor-wang-ba-gu-mi-sok (솔왕바구미속)

Type species: Curculio lymxylon Fabricius, 1792=Curculio corticalis Paykull, 1792.

SYNONYM: Bulbifer Dejean, 1821: 99 (supressed; Type species: Curculio lymxylon Fabricius, 1792 = Curculio corticalis Paykull, 1792).

Dryophora Berthold, 1827: 391 (unnecessary replacement name; Type species: *Curculio lymxylon* Fabricius, 1792=*Curculio corticalis* Paykull, 1792).

Tetratemnus Wollaston, 1873: 9 (Type species: *Tetraspartus bagoides* Pascoe, 1885). *Tetraspartus* Pascoe, 1885: 309 (Type species: *Tetraspartus bagoides* Pascoe, 1885).

This genus is essentially characterized by the conspicuously 5-segmented tarsi in combination with the 4-segmented funicle.

Number of species: 6 species in Asia (1 species in Korea). Distribution: Afrotropical, Australian, Nearctic, Palaearctic.

50. *Dryophthorus corticalis* (Paykull, 1792) (Pls. 8-50, 14-50)

Sor-wang-ba-gu-mi (솔왕바구미)

Curculio corticalis Paykull, 1792: 41.

Curculio lymexylon Fabricius, 1792: 420.

Tetratemnus sculpturatus: Kono, 1938: 144 (nec Wollaston, 1873).

Description: Elytra with a well-defined, subapical carina, broadly explanate and reflexed. Elytra fusiform, much broader across humeri than broadest part of prothorax; each elytron subtruncate at apex; prosternal process half as broad as mesosternal one, which is 2/3 as broad as middle coxa (Konish, 1963).

Additional description: Derm black, legs and antennae reddish-black, but usually covered with whitish-yellow material. Head and pronotum clearly punctate. Elytral intervals costate and almost straight posteriorly. Elytral strioles quadrate at base and middle of elytra, then gradually rounded. Rostrum two times as long as wide with a longitudinal sulcus on ventral side and antennae inserted just before the middle. Scrobe prolonged posteriorly but not touching the eye and bent down. Eyes elongated vertically. Prothorax with strong constriction on anterior part. Each tibia with an uncus. 3rd tarsomere not bilobed and each tarsomere clearly visible.

MEASUREMENTS: Body length (excluding rostrum). 3.2–3.6 mm.

BIOLOGICAL NOTES: Host plants are *Pinus luchuensis, Abies firma, Abies sachalinensis, Picea jezoensis* (Morimoto, 1978).

DISTRIBUTION: Afrotropical, Australian, Korea, Caucasus, Europe, Japan, Russia (East Siberia, Far East).

KOREA: Central.

Specimens examined: Gwangreung, 21.v.1982; Gwangreung, GG, 23.v.1982; Youngil, GB, 18.vii. 1983; 4exs., Mt. Yongmunsan, GG, 11.iv.1992; 5exs., Gwangju, GG, 24.vii.1992; Chuncheon, GW, 24.vii.1997; 17exs., Joyangri, Dongsanmyeon, Chuncheonsi, GW, 14.vi-7.vii.2011.

KOREAN RECORD: Egorov, 1976; Hong et al., 2001; Paek et al., 2010.

Subfamily Orthognathinae Lacordaire, 1865

Wang-ba-gu-mi-a-gwa (왕바구미아과)

Tribe Orthognathini Lacordaire, 1865

Wang-ba-gu-mi-jok (왕바구미족)

Genus Sipalinus Marshall, 1943: 119.

Wang-ba-gu-mi-sok (왕바구미속)

Type species: Calandra discors Fabricius, 1801=Curculio gigas Fabricius, 1775.

SYNONYM: Oxyrhynchus Schoenherr, 1823: 1133 (non Leach, 1818).

Hyposipalus Voss, 1962: 356 (Type species: *Curculio guineensis* Fabricius, 1798). *Prosipalinus* Voss, 1962: 357 (Type species: *Hyposipalus fallaciosus* Voss, 1962).

Number of species: 4 species in Asia (1 species in Korea).

DISTRIBUTION: Palaearctic.

51. *Sipalinus gigas* (Fabricius, 1775) (Pls. 9-51, 14-51)

Wang-ba-gu-mi (왕바구미)

Curculio gigas Fabricius, 1775: 127. Calandra granulatus Fabricius, 1801: 432. Sipalus hypocrita Boheman, 1845: 209. Sipalus tinctus Walker, 1859: 218. Sipalus chinensis Fairmaire, 1887: 130. Sipalus formosanus Kono, 1934: 7.

Redescription: Derm black and covered with short, velvety pubescence. Velvety pubescence yellow, light brown, and blackish-brown. Eyes elongate, located on lateral sides, and contacting each other ventrally. Rostrum as long as fore tibia, parallel-sided until 1/3 part from base, narrowing anteriorly from that area and then widening apically. Antennae 8-segmented and inserted along apical 1/3 of rostrum. Scape as long as 2nd to 5th segments combined. Pronotum parallel-sided from base to 2/3 part of lateral margin and weakly constricted at apical area. Round, large tubercles covering pronotum except longitudinally even area at middle of pronotum. Elytra with elongated swelling at odd-numbered intervals. Elytral strioles large, gradually becoming smaller posteriorly. Procoxae contacting each other, mesocoxae separated by narrowing mesosternal process and hind coxae widely separated. Metasternum concave in middle. Each tibiae with an uncus. 3rd tarsomere not bilobed; 4th tarsomere concealed in 3rd. Pretarsal claws without any teeth.

MEASUREMENTS: Body length (excluding rostrum). 12–29 mm.

BIOLOGICAL NOTES: Host plants are *Abies firma, Abies sachalinensis, Picea jezoensis, Pinus* spp., *Cryptomeria japonica, Chamaecyparis obtuse, Fagus crenata, Castanea crenata, Quercus* spp., *Prunus* spp. (Morimoto, 1978).

DISTRIBUTION: Korea, China, Japan, Oriental, Russia (East Siberia, Far East), Taiwan.

KOREA: North, Central, South, Jeju Is.

Specimens examined: Mt. Halrasan, JJ, 2.vii.1922; Sotokongo (=Oegeumgang, Mt. Geumgangsan), 22.vii.1923; Onseiri (=Onjeongri, Mt. Geumgangsan), 25.vii.1924; Seoguipo, JJ, 15.viii.1957; Suwon, GG, v.1968; Suwon, GG, 24.v.1971; 5exs., Mt. Chiaksan, 30.v.1974; Mt. Surisan, Gunpo, GG, 20.v.1975; Seoguipo, 28.ix.1975; Mt. Jirisan, Piagol, JN, 17.vii.1976; Suwon, GG, 13.x.1976; Gwangreung, GG, 21.vi.1982; Suwon, GG, 10.v.1982; Suwon, GG, 17.vi.1982; Cheongweon, CB, 21.iv.1984; Eorimok, JJ, 36.vi.1984; Seoguipo, 14.v.1985; Seoguipo, 12.vii.1985; Mt. Surisan, Gunpo, GG, 2.viii.1987; Suwon, GG, 1.vi.1987; Suwon, GG, 24.vi.1987; Suwon, GG, 25.vi.1987; Suwon, GG, 25.viii.1988; Suwon, GG, 28.v.1989; Suwon, GG, 20.vii.1989; Jeju, JJ, 28.vi.1990; Muan, JN, v.1991; Mt. Yeogisan, Suwon, GG, 18.vi.1991; Gangchon, GG, 19.v.1992; Gochang, JB, 1-5.vii.1992; Suwon, GG, 22.v.1992; Suwon, GG, 13.vii.1992; Suwon, GG, 19.viii.1992; Bonhwa, GB, vi.1993; Gongju, CN, 1-5.vi.1993; Hongcheon, GW, 24.v.1993; Hwacheon, GW, 25.v.1993; Yeongdong, CB, 11-15.vii.1993; Chuncheon, GW, 23.vi. 1994; Pocheon, GG, 30.vii.1994; Mt. yeogisan, Suwon, GG, 20-26.vii.1994; Anmyeondo, CN, 20.viii. 1996; Chuncheon, GW, 13.vi.1996; Anmyeondo, CN, 21-22.vii.1997; Sancheong, 5-6.vi.1997; 3exs., Songgwwangsa, Mt. Jogyesan, JN, 6.v.1998; Hanrim, JJ, 28.ix.1999; Hoengseong, GW, 13.vi.2000; Jeju, JJ, 26.ix.2000; Donamri, Banpomyeon, Gongjusi, CN, 21-28.vi.2005; Janghakri, Dongmyeon, Chuncheonsi, GW, 14.vi.-7.vii.2011; Joyangri, Dongsanmyeon, Chuncheonsi, GW, 14.vi.-7.vii.2011.

KOREAN RECORD: Kolbe, 1886; Faust, 1887; Okamoto, 1924; Matsumura, 1931; Saito, 1931; Kamijo,

1933; Kusanagi, 1934; Kusanagi, 1937; Kono and Kim, 1937; Mochizuki and Tsunekawa, 1937; Kono, 1938; Mochizuki and Masui, 1939; Ishii, 1940; Nagayama and Okamoto, 1940; Saito, 1941; Cho, 1947; Cho, 1957; Kim, 1961; Morimoto, 1962; Cho, 1963; Cho et al., 1968; ZSK, 1968; Cho, 1969; KSPP, 1972; Kim et al., 1974; Kim, 1978; Yoon and Nam, 1978; Yoon and Nam, 1979; Kim et al., 1985; Kwon and Lee, 1986; KSPP, 1986; Kim et al., 1991; Kim and Oh, 1991; FRI, 1991; Park et al., 1993; ESK/KSAE, 1994; Kim, 1994; FRI, 1995; Kim, 1995; Paik et al., 1995; Egorov and Zherikhin, 1996; Hong et al., 2001; Paek et al., 2010.

Subfamily Rhynchophorinae Schoenherr, 1833

Cham-wang-ba-gu-mi-a-gwa (참왕바구미아과)

Tribe Listosomini Lacordaire, 1865

Ssal-ba-gu-mi-jok(쌀바구미족)

Genus Sitophilus Schoenherr, 1838: 967.

Ssal-ba-gu-mi-sok (쌀바구미속)

Type species: Curculio oryzae Linnaeus, 1763.

SYNONYM: Calandra Gistel, 1848: 136 (non Clairville, 1798; unnecessary replacement).

Number of species: 7 species in Asia (1 species in Korea).

DISTRIBUTION: Cosmopolitan.

52. *Sitophilus zeamais* Motschulsky, 1855 (Pls. 9-52, 14-52)

Eo-ri-ssal-ba-gu-mi(어리쌀바구미)

Sitophilus oryzae var. Zea-mais Motschulsky, 1855: 77.

Cossonus quadrimaculus Walker, 1859: 219.

Calandra chilensis Philippi and Philippi, 1864: 274.

Calandra platensis Zacher, 1922: 56.

TL: Cayenne.

Redescription: Derm brown to blackish-brown, legs and antennae reddish-brown, elytra with unclear X-shaped, reddish-brown mark. Eyes vertically elongate, separated dorsally and contacting each other ventrally. Rostrum as long as fore femur, parallel-sided after basal swelling. Basal swelling two times as wide as rostrum. Antennae 8-segmented and inserted near base of rostrum. Scape as long as 2nd to 6th antennomeres combined. Rostrum and pronotum covered with many

punctures. Pronotum slightly narrowing anteriorly from base to 6/7 part of lateral margin and strongly constricted at apical area. Elytra with unclear strioles on large and shallow punctures; elytral intervals slightly costate. Procoxae widely separated from each other, the width between them as wide as width between mesocoxae; width between metacoxae much wider than others. Metasternum concave in middle. Each tibiae with an uncus apically and another uncus on inner margin of tibia just before apical one. 3rd tarsomere slightly bilobed, 4th tarsomere located in bilobed area. Pretarsal claws without any teeth.

MEASUREMENTS: Body length (excluding rostrum). 2.9–3.5 mm.

BIOLOGICAL NOTES: This species is an important pest on stored grains such as rice, barley, and wheat.

DISTRIBUTION: Cosmopolitan.

Korea: Central.

SPECIMENS EXAMINED: Many specimens from all parts of Korea. **KOREAN RECORD:** Park and Morimoto, 1999; Park et al., 2001.

REMARKS: This species was reported from Daegu, GB Province in 1933 by Kamijo, with the name *Calandra oryzae*. However, we could only find *Sitophilus zeamais* from stored products in the field in Korea, and could not find *S. granarius* nor *S. oryzae*.

Tribe Rhynchophorini Schoenherr, 1833

Cham-wang-ba-gu-mi-jok(참왕바구미족)

Genus Otidognathus Lacordaire, 1865: 273.

Meot-jaeng-i-wang-ba-gu-mi-sok (멋쟁이왕바구미속)

Type species: *Litorhynchus westermanni* Boheman, 1845.

Synonym: Litorhynchus Schoenherr, 1845: 222 (non Macquart, 1841).

Number of species: 13 species in Asia (1 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

53. Otidognathus jansoni Roelofs, 1875 (Pl. 9-53)

Meot-jaeng-i-wang-ba-gu-mi (멋쟁이왕바구미)

Otidognathus jansoni Roelofs, 1875: 186.

Otidognathus nigropictus Fairmaire, 1878: 128 (Type Locality: China).

Otidognathus maculipennis Voss, 1931: 38 (Type Locality: China).

Otidognathus satteloides Voss, 1958: 120.

TL: Japan.

Redescription: Derm glittery and blackish-brown, except reddish-brown color on femora, pronotum, and elytra. Most areas on femora, lateral area of pronotum, and elytra reddish, except six blackish spots. Eyes vertically elongate, separated from each other dorsally and ventrally. Rostrum as long as fore femur, parallel-sided after basal swelling. Basal swelling slightly wider than remainder of rostrum. Antennae 8-segmented and inserted at base of rostrum. Scape as long as other antennomeres combined. Head covered with many punctures, the puntures becoming smaller anteriorly. Pronotum parallel-sided at 1/2 of lateral margin, round, narrowing anteriorly from middle to 6/7 part of lateral margin, strongly constricted at apical area. Posterior margin strongly concave posteriorly. Mesepimeron widely and clearly visible in dorsal view. Scutellum inverted triangular. Elytral striae from 1st to 6th stria sulcate longitudinally with shallow punctures; elytral intervals with small punctures. Procoxae narrowly separated from each other, the width between mesocoxae half as wide as diameter of mesocoxa; width between metacoxae two times as wide as width between mid coxae. Metasternum flat in middle. Each tibia with an uncus apically, somewhat long bristles along inner margin of tibia. 3rd tarsomere triangular, 4th tarsomere short and inserted on 3rd tarsomere; 5th tarsomere two times as long as 3rd. Pretarsal claws without any teeth. Pygidium large and cleary visible in dorsal view.

MEASUREMENTS: Body length (excluding rostrum). 8.5 mm.

BIOLOGICAL NOTES: This species was collected from bamboo sprouts of *Sasa* sp. and *Phyllostachys* spp. (Morimoto, 1994).

DISTRIBUTION: Korea, China, Japan.

Korea: South.

SPECIMENS EXAMINED: 1ex., Wando, JN, 22.vii.1984.

KOREAN RECORD: Kwon and Lee, 1986; ESK/KSAE, 1994; Hong et al., 2001; Paek et al., 2010.

Tribe Sphenophorini Lacordaire, 1865

Nam-bang-wang-ba-gu-mi-jok(남방왕바구미족)

Genus *Aplotes* Chevrolat, 1885: 100.

Jeom-bag-i-wang-ba-gu-mi-sok (점박이왕바구미속)

Type species: *Aplotes aliena* Chevrolat, 1885.

Number of species: 13 species in Asia (1 species in Korea).

DISTRIBUTION: Oriental, Palaearctic.

54. *Aplotes roelofsi* (Chevrolat, 1882) (Pls. 9-54, 14-54)

Heuk-jeom-bag-i-wang-ba-gu-mi (흑점박이왕바구미)

Sphenophorus roelofsi Chevrolat, 1882: 159.

Sphenophorus carinicollis: Roelofs (nec Gyllenhal), 1875: 187.

TL: Japan.

Redescription: Body reddish-brown, antennae dark brown. Pronotum with blackish, longitudinal stripes at middle and sides. Elytra with a pair of black spots at middle and pair of transverse spots at sides of declivity. Antennae, legs, and ventral side of body slightly glittery. Eye vertically elongate, separated from each other dorsally and almost contacting ventrally. Rostrum as long as pronotum, parallel-sided after basal swelling. Basal swelling twice as wide as other part of rostrum. Antennae 8-segmented and inserted from swelling of rostrum latero-ventrally. Scape as long as 2nd to 7th antennomeres combined. Head and rostral swelling covered with many punctures. Pronotum parallel-sided and strongly narrowing, constricted at apical area, Posterior margin of pronotum bisinuate, weakly concave posteriorly at middle. Disk of pronotum sulcate longitudinally at middle, with a longitudinal keel in sulcated area. Mesepimeron narrowly but clearly visible in dorsal view. Scutellum elongate-oval. Elytra velvety, elytral striae longitudinally connected. Procoxae narrowly separated by pointed prosternal process; mesocoxae widely separated by truncated mesosternal process. Mesosternal process as wide as base of femur; width between metacoxae as wide as width of metacoxal cavity. Metasternum flat in middle. Each tibia with several rows of short bristles, an uncus apically and somewhat long pubescent fascicles just before uncus. 3rd tarsomere triangular, 4th tarsomere short and inserted on 3rd; 5th tarsomere 1.5 times as long as 3rd tarsomere. Pretarsal claws without any teeth. Pygidium large and cleary visible in dorsal view. Apical sides of 5th ventrite and pygidium with somewhat long pubescence.

MEASUREMENTS: Body length (excluding rostrum). 7.0–7.8 mm.

BIOLOGICAL NOTES: Adults of these weevils are found on *Quercus acutissima* and feed on the stems of *Commelina communis* in Fukuoka (Morimoto, 1978).

DISTRIBUTION: Korea, China, Japan.

KOREA: Central.

Specimens examined: Najangsan, 10.vi.1975; Mt. Munsusan, 21.vi.1997; Mt. Mohusan, Suncheonsi, JN, 17.vii.2007; Juamho, Juammyeon, Suncheon, JN, 13.vi.2010; Mt. Mohusan, Dongbokmyeon, Hwasungun, JN, 19.vi.2012.

KOREAN RECORD: Kim and Kim, 1974; Kwon and Lee, 1986; ESK/KSAE, 1994; Hong et al., 2001; Paek et al., 2010.

REMARKS: In Korea, the adults were collected from *Commelina communis* on Mt. Mohusan, JN province.

Genus Sphenophorus Schoenherr, 1838

Jan-di-wang-ba-gu-mi-sok (잔디왕바구미속)

Type species: *Curculio abbreviatus* Fabricius, 1787.

SYNONYM: Calandra Clairville, 1798: pl. 2 (Supressed; Type species: Curculio abbreviatus Fabicius, 1787). Sitonobia Gistel, 1856: 369 (Type species: Curculio decurtatus Gmelin, 1790=Curculio abbreviatus Fabricius, 1787).

Trichischius LeConte, 1876: 426 (Type species: *Trichischius crenatus* LeConte, 1876). *Merothricus* Chevrolat, 1885c: 290 (Type species: *Sphenophorus rusticus* Gyllenhal, 1838).

Nesorthognathus Voss, 1943: 234 (Type species: *Nesorthognathus pedestris* Voss, 1943 = *Sphenophorus crassus* Blanchard, 1847).

Number of species: 7 species in Asia (1 species in Korea). DISTRIBUTION: Afrotropical, Nearctic, Oriental, Palaearctic.

55. Sphenophorus venatus vestitus Chittenden, 1904 (Pls. 9-55, 15-55)

Jan-di-wang-ba-gu-mi (잔디왕바구미)

Sphenophorus venatus vestitus Chittenden, 1904: 134.

TL: America.

Redescription: Derm glittery and blackish-brown, except brown intervals of elytra. Eyes located laterally, separated from each other dorsally and ventrally. Rostrum as long as fore femur, parallelsided after basal swelling. Basal swelling two times wider than remainder of rostrum. Antennae 8-segmented, inserted at base of rostrum. Scape as long as other antennomeres combined. Head and rostrum covered with many small punctures, swelling of rostrum covered with large punctures. Frons with a longitudinal sulcus between eyes. Pronotum parallel-sided at 3/4 of lateral margin, roundly narrowing anteriorly and strongly constricted at apical area. Basal margin slightly concave posteriorly. Mesepimeron almost invisible in dorsal view. Scutellum an inverted triangle, slightly longer than wide. Elytral striae with somewhat large punctures, connected longitudinally with narrow lines. Elytral intervals flattened with small punctures, odd-numbered intervals with more bright colors. Procoxae narrowly separated by pointed prosternal process, mesocoxae widely separated by truncated mesosternal process; width between metacoxae as wide as width of metacoxal cavity. Metasternum and 1st and 2nd ventrites in male concave in middle. Each tibia with several rows of short bristles, an uncus apically and a small projection just before uncus, with somewhat long bristles on each side of projection. 3rd tarsomere almost same length as 1st tarsomere but slighter wider than 1st; 3rd tarsomere not triangular, 4th tarsomere short and inserted in 3rd anteriorly; 5th tarsomere two times as long as 3rd. Pretarsal claws without any teeth. Pygidium gradually narrowing and truncate posteriorly. Dorsum of pygidium roughly punctate and with somewhat long setae at apical area.

MEASUREMENTS: Body length (excluding rostrum). 6.0–11.0 mm.

BIOLOGICAL NOTES: Young larvae develop in the stems of grasses, emerge from the stem and attack the roots of the grass. They later pupate and emerge as adults under the ground (Yang et al., 2009).

DISTRIBUTION: Korea, America, Bhamas, Cuba, Dominican Republic, Japan, Puerto Rico, Russia (Far East), Taiwan.

KOREA: South.

SPECIMENS EXAMINED: $1 \, \mathcal{J}$, Jinhae, GN, 15.x.2009. **KOREAN RECORD:** Yan et al., 2009; Paek et al., 2010.

Remarks: Body dark brown to black color. The pronotum is coarsely punctate except for a Y-shaped area in the center and a parenthesis-like marking on each side. In October 2009, this weevil was found on zoysiagrass at Yongweon country club in Jinhae (Yang et al., 2009).

Subfamily Stromboscerinae Lacordaire, 1865

Gom-bo-wang-ba-gu-mi-a-gwa (곰보왕바구미아과)

Genus Synommatoides Morimoto, 1978: 104.

Gom-bo-wang-ba-gu-mi-sok (곰보왕바구미속)

Type species: Synommatoides shirozui Morimoto, 1978.

Head globular, finely punctate; rostrum separated from head by a shallow, transverse depression between eyes; eyes lateral, oval; antennae with 5-segmented funicle, club obliquely truncate. Scutellum absent. Elytra with reduced humeri, punctured-striate, ultimate stria abbreviated behind hind coxa. forecoxae connate; median coxae very narrowly separated; intercoxal process of ventrite 1 broader than coxa, truncate. Tarsi visibly 4-segmented, 3th tarsomere as broad as 2nd, not bilobed.

NUMBER OF SPECIES: 7 species in Asia (1 species in Korea). **DISTRIBUTION:** Afrotropical, Nearctic, Oriental, Palaearctic.

56. Synommatoides shirozui Morimoto, 1978 (Pls. 9-56, 15-56)

Gom-bo-wang-ba-gu-mi (곰보왕바구미)

Synommatoides shirozui Morimoto, 1978: 104.

TL: Japan - Naganoshima; Ishizuka, Korea - Mt. Hanna, Querpart Is.

Original description: Derm black, with matted pubescence filling the punctures. Head sparsely provided with fine punctures, their interspaces broader than punctures. Rostrum parallel-sided, closely punctate, the extreme apex shiny. Prothorax slightly longer than wide, nearly parallel-sided, subapical constriction well marked on the sides and weak on the disk, pronotum with large, subreticulate punctures, anterior margin not punctate. Elytra oblong-ovate, widest before the middle, with large punctures, these punctures tend to become smaller posteriorly, intervals much narrower than striae, keeled, alternate intervals strongly costate and with ridges of matted pubescence, the remaining intervals with sparse pubescence; intervals 3 and 9, and 5 and 7 connate behind, respectively (Morimoto, 1978).

MEASUREMENTS: Body length (excluding rostrum). 3.5–4.2 mm.

BIOLOGICAL NOTES: Several individuals were collected under the bark of dead wood in Korea.

DISTRIBUTION: Korea, Japan.

Korea: Is. Jejudo.

SPECIMENS EXAMINED: Seongpanak, JJ, 11.vi.1998; Donneko, Seogwiposi, JJ, 29.viii.1998; 3exs., Gyoraeri, Jocheoneub, Jejusi, JJ, 11.viii.2007; Gyoraeri, Jocheoneub, Jejusi, JJ, 18.vi.2012.

KOREAN RECORD: Park and Morimoto, 1999; Park et al., 2001.

**** Removed species in the family Dryophthoridae** from the Korean Fauna.

1. Sitophilus granarius (Linnaeus, 1758)

Geu-ra-na-ri-a-ba-gu-mi (그라나리아바구미)

Curculio granarius Linnaeus, 1758: 378.

TL: Europe

Curculio segetis Linnaeus, 1758: 381. Curculio pulicarius Panzer, 1798: 54. Curculio unicolor Marsham, 1802: 275.

Sitophilus remotepunctatus Gyllenhal, 1838: 979.

MEASUREMENTS: Body length (excluding rostrum). 3.0-4.0 mm.

BIOLOGICAL NOTES: This species damages stored products like rice, barley, and corn.

DISTRIBUTION: Cosmopolitan. KOREAN RECORD: Kim, 1993.

Remarks: This species was previously reported from Jeju Is. (Kim, 1993). However, we could not find any specimens or reports from stored products in Korea. This species also is usually detected in quarantine.

2. Sitophilus oryzae (Linnaeus, 1763)

Ssal-ba-gu-mi(쌀바구미)

Curculio oryzae Linnaeus, 1763: 395.

TL: Europe.

Curculio frugilegus DeGeer, 1775: 273.

Curculio granarius Strom, 1783: 56 (Homonym).

Sphenophorus quadriguttatus Montrouzier, 1860: 910.

Calandra funebris Rey, 1895: 50.

Calandra orizae Masters, 1886: 684.

Calandra minor Sasaki, 1899: 202.

Calandra sasakii Takahashi, 1928: 164.

MEASUREMENTS: Body length (excluding rostrum). 2.0-2.8 mm.

BIOLOGICAL NOTES: This species damages stored products like rice, barley, and corn.

DISTRIBUTION: Cosmopolitan.

REMARKS: All of the records of this species in Korea seem to be misidentifications, and we could not find any specimens or occurences from stored products in Korea. This species, however, is sometimes detected in quarantine.

Genus Cosmopolites Chevrolat, 1885: 289.

Ba-na-na-wang-ba-gu-mi-sok (바나나왕바구미속)

Type species: Calandra sordida Germar, 1824.

Number of species: 7 species in Asia.

DISTRIBUTION: Afrotropical, Nearctic, Oriental, Palaearctic.

3. Cosmopolites sordidus (Germar, 1824)

Ba-na-na-wang-ba-gu-mi(바나나왕바구미)

Calandra sordida Germar, 1824: 299.

TL: India.

MEASUREMENTS: Body length (excluding rostrum). 10.0–12.0 mm.

BIOLOGICAL NOTES: This species damages the roots of *Musa* sp. (Ahn et al., 1990).

DISTRIBUTION: China, Japan (Ryukyu), Andamanen, Australia, Brazil, Fiji, Gabun, Inia, Java, Madagascar, Madeira, Mauritius, Mayotte, Myanmar, Moluccas, New Guinea, Polynesia, Reunion, Samoa, Seychellen, Sri Lanka, Veitnam.

Korea: Central.

Specimens examined: 1ex., Jeju, 25.vii.1988; 12exs., Jeju, 5.viii.1988.

KOREAN RECORD: Park and Morimoto, 1999; Park et al., 2001.

Remarks: This species damaged the roots of *Musa* sp. cultivations from Gimhae in 1988 and Jeju Is. in 1988; however, recently, the trees are cultivated ornamentally only in a few areas. We could not find any report or occurrence from cultivated areas in the southern part of Korea after the first report.

Genus Nassophasis Waterhouse, 1879: 17.

Nan-wang-ba-gu-mi-sok(난왕바구미속)

Type species: Calandra sordida Germar, 1824.

Number of species: 7 species in Asia (1 species in Korea). DISTRIBUTION: Afrotropical, Nearctic, Oriental, Palaearctic.

4. Nassophasis aspericollis Heller, 1941

Nan-wang-ba-gu-mi(난왕바구미)

Nassophasis aspericollis Heller, 1941: 160.

TL: Cambodia.

MEASUREMENTS: Body length (excluding rostrum). 9.5–10.5 mm.

BIOLOGICAL NOTES: Larvae were collected from the roots of *Pleione* spp. (Hong et al., 2001).

DISTRIBUTION: Cambodia, China, Taiwan.

Specimens examined: 5exs., Gwacheon, GG, 16-17.ix.1998; 2exs., Gwacheon, GG, 10.ii.1999.

KOREAN RECORD: Hong et al., 2001 (Intercepted and unestablished).

Remarks: This species was detected from *Pleione* sp. in greenhouses in Gwacheon, Gyeonggi province, which were imported from China between 1998 and 1999 (Hong, 2000), but there have been no occurrences in Korea since then.

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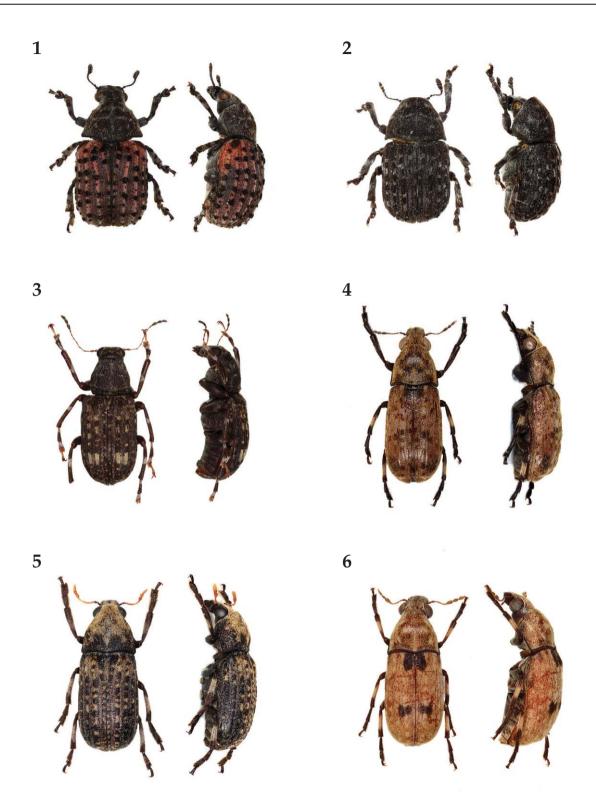


Plate 1. Anthribidae. 1. Anthribius kuwanai; 2. Anthribius niveovariegatus; 3. Habrissus analis; 4. Euparius koreanus; 5. Euparius oculatus; 6. Euparius tamui.

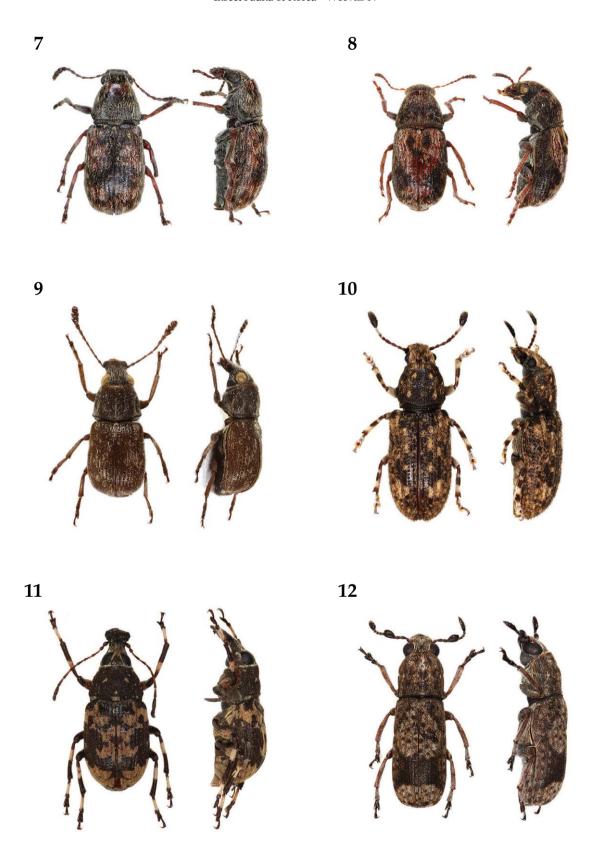


Plate 2. Anthribidae. 7. Autotropis basipennis; 8. Autotropis distinguenda; 9. Enedreytes gotoi; 10. Eucorynus crassicornis; 11. Sympaector rugirostris; 12. Ozotomerus japonicus laferi.



Plate 3. Anthribidae. 13. Aphaulimia debilis; 15. Phaulimia rufobasis; 16. Ulorhinus funebris; 17. Phloeobius mimes; 19. Platystomos sellatus longicrus; 20. Sintor dorsalis.

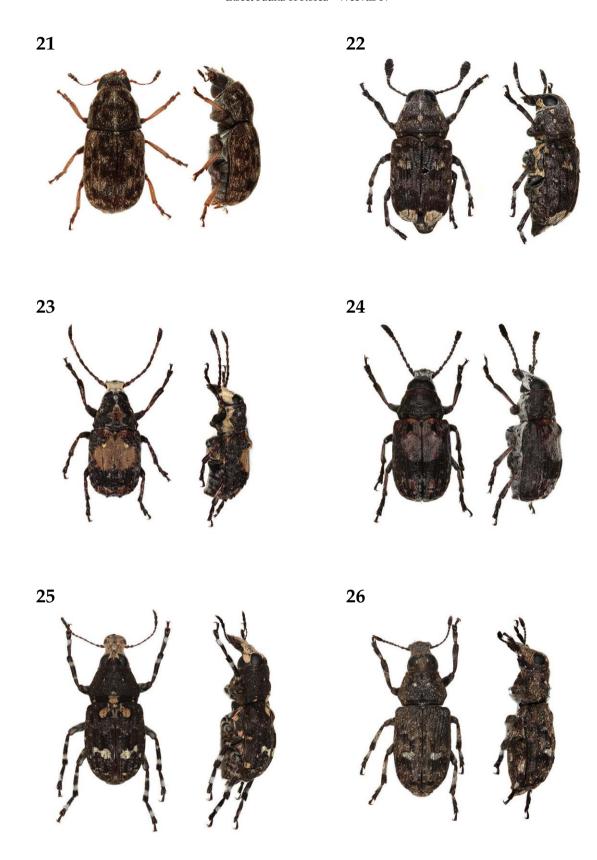


Plate 4. Anthribidae. 21. Opanthribus tesselatus; 22. Androceras flabellicorne; 23. Gonotropis gibbosa; 24. Gonotropis terminassianae; 25. Sphinctotropis laxa; 26. Tropideres cyaneotergum.

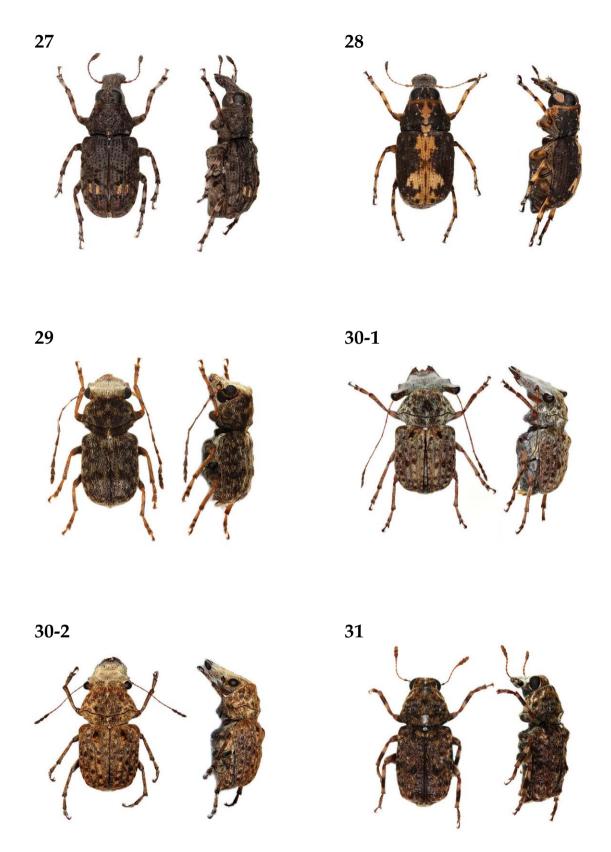


Plate 5. Anthribidae. 27. Tropideres naevulus; 28. Tropideres securus; 29. Exechesops foliatus; 30-1, 2. Exechesops leucopis (1-3, 2-9); 31. Gibber nodulosus.



Plate 6. Anthribidae. 32. Rhaphitropis guttifer; 34. Uncifer angulatus; 35. Uncifer difficilis; 36. Uncifer triangulus; 37. Uncifer truncatus; 38. Unciferina nigrothoracica.

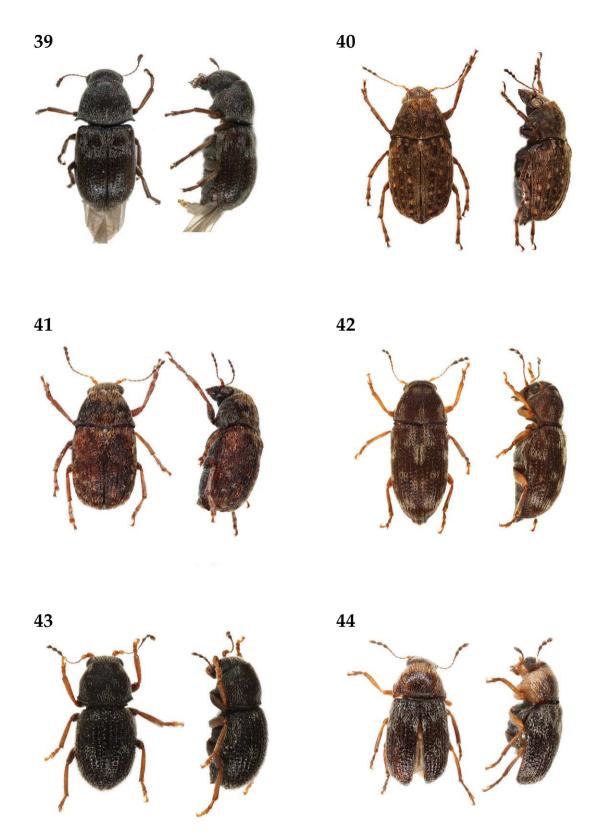


Plate 7. Anthribidae, Brachyceridae and Dryophthoridae. 39. *Unciferina oculimaculata;* 40. *Araecerus fasciculatus;* 41. *Araecerus tarsalis;* 42. *Deropygus histrio;* 43. *Valenfriesia wollastoni;* 44. *Xanthoderopygus watanabei.*

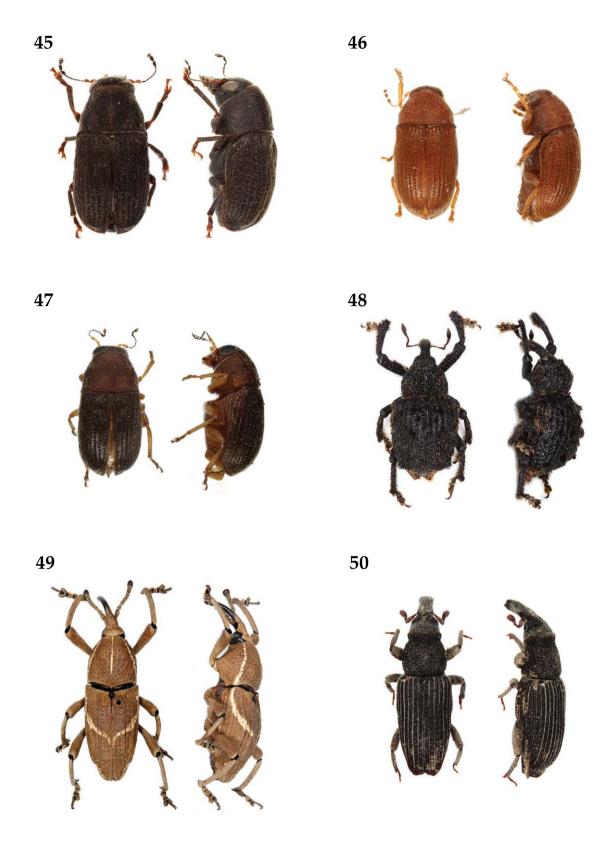


Plate 8. Anthribidae, Brachyceridae and Dryophthoridae. 45. Choragus compactus; 46. Choragus cryphaloides; 47. Citacalus pygidialis; 48. Desmidophorus hebes; 49. Cryptoderma fortunei; 50. Dryophthorus corticalis.

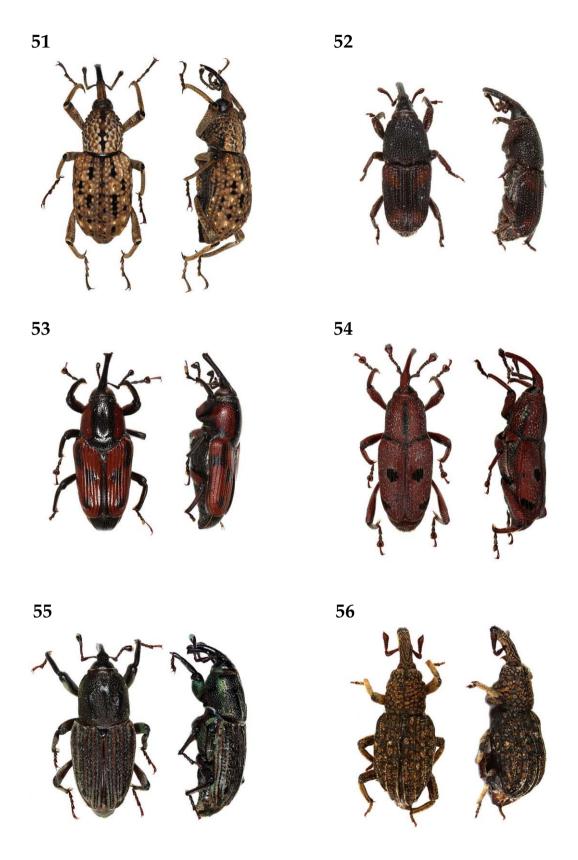


Plate 9. Dryophthoridae. 51. Sipalinus gigas; 52. Sitophilus zeamais; 53. Otidognathus jansoni; 54. Aplotes roelofsi; 55. Sphenophorus venatus vestitus; 56. Synommatoides shirozui.

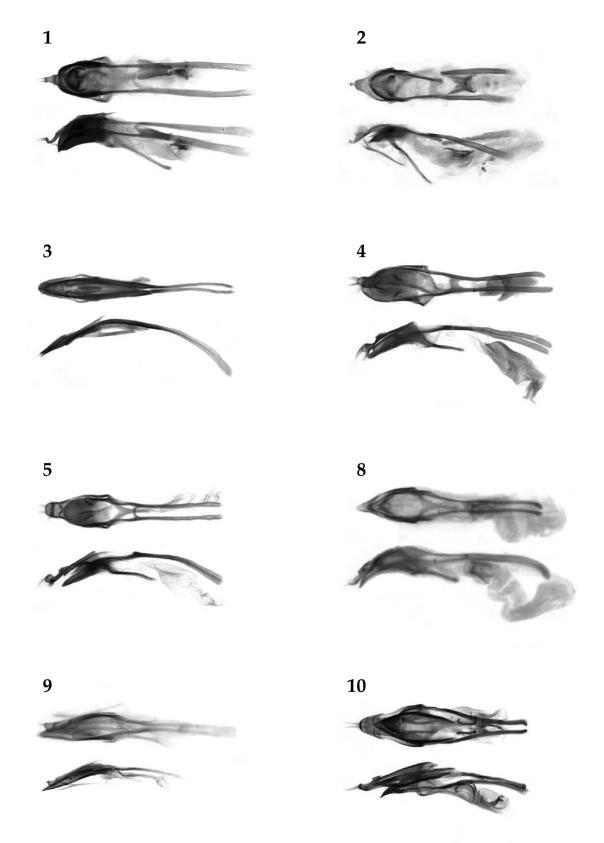


Plate 10. Anthribidae. 1. Anthribius kuwanai; 2. Anthribius niveovariegatus; 3. Habrissus analis; 4. Euparius koreanus; 5. Euparius oculatus; 8. Autotropis distinguenda; 9. Enedreytes gotoi; 10. Eucorynus crassicornis.

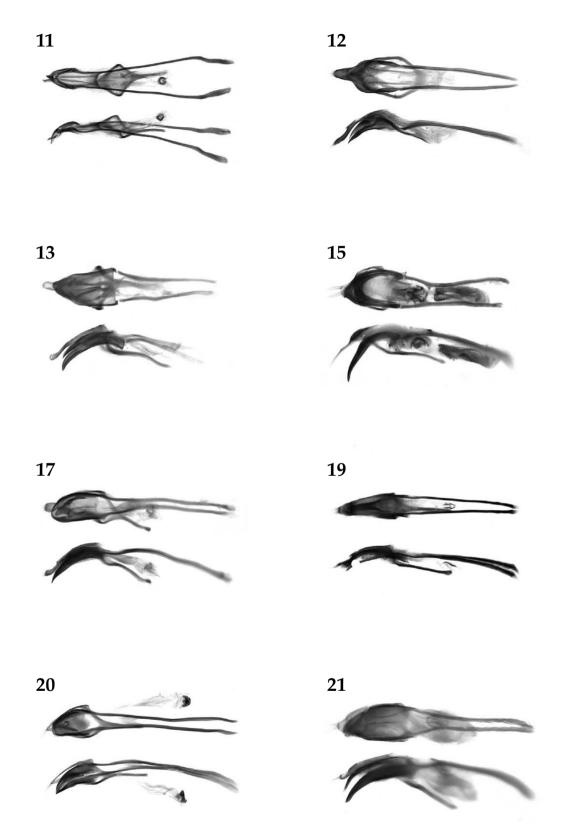


Plate 11. Anthribidae. 11. Sympaector rugirostris; 12. Ozotomerus japonicus laferi; 13. Aphaulimia debilis; 15. Phaulimia rufobasis; 17. Phloeobius mimes; 19. Platystomos sellatus longicrus; 20. Sintor dorsalis; 21. Opanthribus tesselatus.

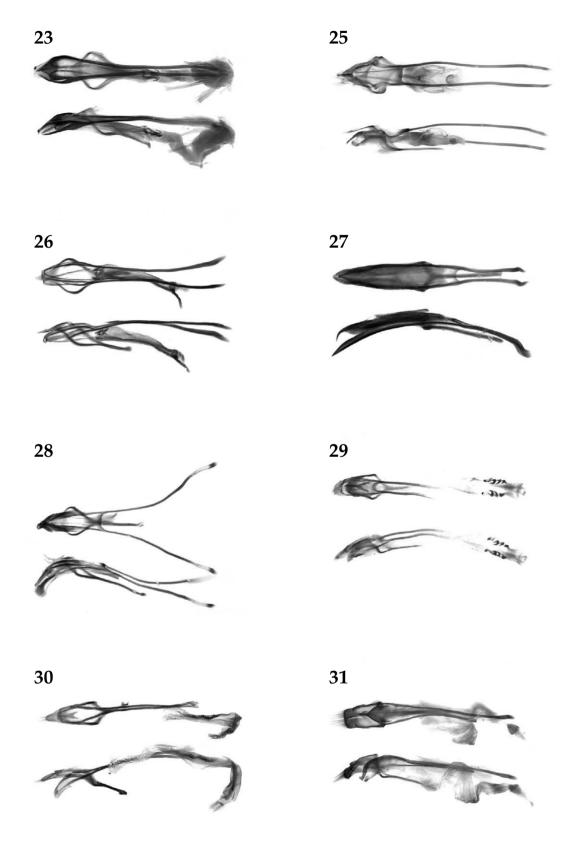


Plate 12. Anthribidae. 23. Gonotropis gibbosa; 25. Sphinctotropis laxa; 26. Tropideres cyaneotergum; 27. Tropideres naevulus; 28. Tropideres securus; 29. Exechesops foliatus; 30. Exechesops leucopis; 31. Gibber nodulosus.

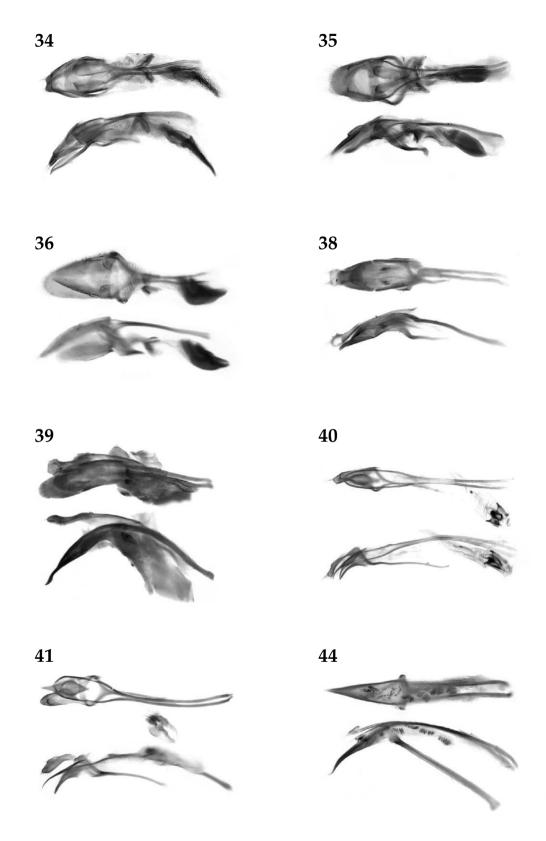


Plate 13. Anthribidae, Brachyceridae and Dryophthoridae. 34. *Uncifer angulatus*; 35. *Uncifer difficilis*; 36. *Uncifer triangulus*; 38. *Unciferina nigrothoracica*; 39. *Unciferina oculimaculata*; 40. *Araecerus fasciculatus*; 41. *Araecerus tarsalis*; 44. *Xanthoderopygus watanabei*.

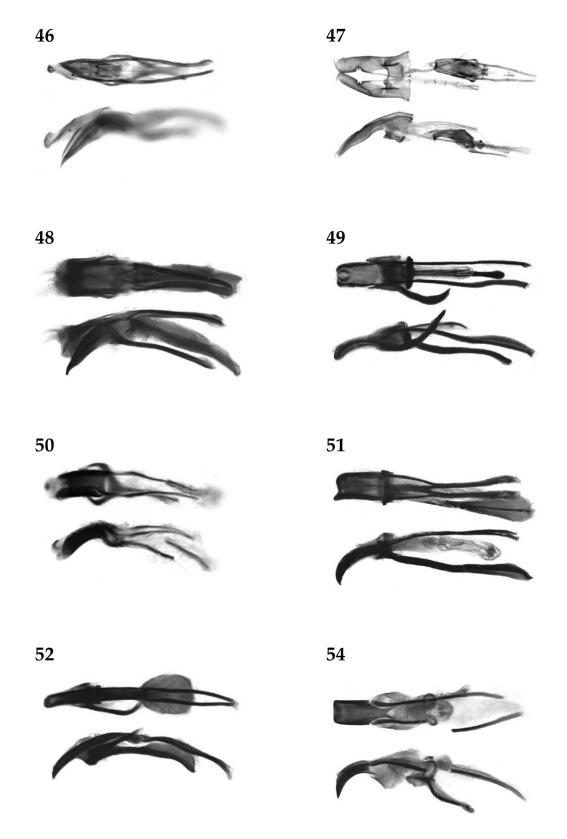


Plate 14. Anthribidae, Brachyceridae and Dryophthoridae. 46. Choragus cryphaloides; 47. Citacalus pygidialis; 48. Desmidophorus hebes; 49. Cryptoderma fortunei; 50. Dryophthorus corticalis; 51. Sipalinus gigas; 52. Sitophilus zeamais; 54. Aplotes roelofsi.

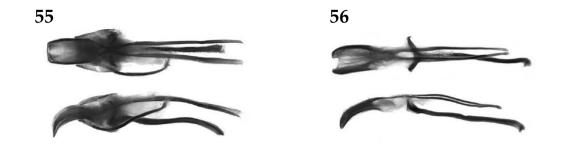


Plate 15. Dryophthoridae. 55. Sphenophorus venatus vestitus; 56. Synommatoides shirozui

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